CURRENT ECONOMIC PROBLEMS

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PREFACE

In this new edition the volume has been substantially rewritten and brought completely up to date. The march of history has called for sweeping changes in emphasis and content of a number of chapters, especially of those treating of our international economic position. A new chapter on the Soviet economic challenge has been added. The scope of the book has on the whole remained the same, as has its general organization.

The principal characteristics of the volume are easily enumerated. It is the work of a single author, and thus, it is hoped, brings some modicum of unity to a field where integration is not readily achieved. The treatment is strictly modern, utilizing to the fullest possible extent the national-income approach and the framework of macro-economics. Virtually all economic problems of the day are public problems and as such are intimately connected with the great aggregates which have become the concern of the economist.

While the problems are discussed from the national point of view, some specific regional issues are singled out for more than incidental treatment.

The work is organized into four broad groups of problems centering around *progress*, *security*, *freedom*, and *peace*. This arrangement is designed to facilitate the integration of topics which otherwise may seem unrelated. It goes without saying that there are aspects of many topics which would justify their treatment under more than one of these headings. On the other hand, the contents of certain subjects which commonly are treated in separate chapters are dispersed over a number of them. This is the case, for example, with respect to business cycles, and monetary and banking problems. The cyclical behavior of economic variables is important in connection with so many problems that its separate treatment in a single chapter would seem to detract from its ubiquitous relevance. Moreover, in the field of economic theory the development of macro-economics has ushered in a new synthesis of the general aspects of the subject and of the substantive matters and tools of analysis formerly treated separately under the heading of business cycles. It seems that the presentation of applied economics should reflect the new integration of theory. Similar considerations apply to the field of money and banking. Thus, wherever such emphasis seems called for, monetary and banking aspects are pointed out throughout the work, instead of being limited to the confines of special chapters.

The author's debt to those who have helped with the preparation of the earlier editions of the work is recorded in the respective prefaces. In pre-

paring the present revision, the author has again received help from experts in many fields. The following scholars have given generous assistance in connection with the chapters relating to their special interests: Professor Lowell D. Ashby of the University of North Carolina (Chapter 25); Dr. Harold Breimyer of the Council of Economic Advisers (Chapter 24); Professor Norbert Brockman of the University of Dayton (Chapter 16); Professor Charles Center of the University of Wisconsin (Chapter 12); Professor Eli W. Clemens of the University of Maryland (Chapter 17); Professor Wilbur J. Cohen of the University of Michigan (Chapter 12); Dr. George H. Ellis of the Federal Reserve Bank of Boston (Chapter 25); Professor John H. Frederick of the University of Maryland (Chapter 17); Professor Vernon A. Mund of the University of Washington (Chapters 15, 16, 25); Professor John J. Murphy of the Catholic University of America (Chapters 21–23); Dr. Morris R. Neifeld of the Beneficial Management Corporation (Chapter 14); Professor William N. Parker of the University of North Carolina (Chapter 25); Dr. Walter Stettner of the Council of Economic Advisers (Chapters 21–23); Professor Philip Taft of Brown University (Chapter 10); and Professor Alexander Woroniak of the Catholic University of America (Chapter 20). To all these scholars the author owes a deep debt of gratitude.

HENRY WILLIAM SPIEGEL

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I. *ECONOMIC PROBLEMS*

Chapter 1

THE GREAT PROBLEMS OF THE AGE: PROGRESS, SECURITY, FREEDOM, AND PEACE

The study of the great economic issues which confront the American public has three purposes. First, as it involves the application of tools of analysis, it helps to sharpen the wit of the student and by implication instructs him in the ways of correct thinking. Moreover, and this is the second purpose, such study represents a milestone on the educational road which prospective economists and other professional students of the social sciences must travel. The third and last purpose is the enlightenment of the future citizens, which this study helps to accomplish. This seems to be the most important purpose of the study of economic problems. The first purpose, perhaps, is more adequately fulfilled by the study of other disciplines and of other branches of economic science: philosophy, mathematics, and economic theory. The second purpose, significant as it is, is so for only a small minority of all students. Thus the study of economic problems is, in the first place, designed to arouse interest in them and to acquaint the students with the facts and analytical tools required for their solution. Such interest and knowledge is indeed indispensable for the proper operation of democratic processes which work through the medium of well-informed and public-spirited citizens.

A "problem" is a baffling or puzzling question for which no ready answer is in store. A problem is economic in character if it affects the material welfare of typical individuals or groups of individuals: their jobs, their incomes, their prospects for advancement, the taxes they must pay, the prices at which they buy or sell, and so on.

ECONOMIC PROBLEMS IN PERSPECTIVE

The Problem of Production. Historically, the most important economic problem has been that of production. Since time immemorial, man has la-

bored hard to produce the necessities of life, becoming an expert in "brinkmanship" in the process and hanging on to a precarious existence "by the skin of his teeth," as in Thornton Wilder's play. The problem of production was the central one to Adam Smith, who wrote about the *Wealth of Nations* rather than about its distribution. The scarcity element is conspicuous also in the conventional definition of economics, which is said to treat of the allocation of scarce resources among different uses.

For the large majority of mankind production still is the Number 1 economic problem. More than three quarters of the world's population still are "dreadfully poor."[1] But as Western societies have grown more opulent, it may be that the rise of the *Affluent Society*[2] heralds the solution of the "economic problem" in the traditional sense. This was indeed the opinion of John M. Keynes, considered by many the master economist of our time, who during the depth of the great depression wrote an extremely optimistic essay on "Economic Possibilities for Our Grandchildren."[3] In this he stated the view that in the absence of certain obstacles the economic problem of production might be solved within a hundred years.

The Problem of Distribution. In the period following Adam Smith the problem of production continued to be an urgent one, but it became overshadowed by that of distribution. Ricardo's *Principles of Political Economy and Taxation*, published in 1817, sets forth as its aim the discovery of the principles that govern the distribution of the national income among the different classes of society. This change in emphasis reflects the growing concern with which the thinking people of that time observed the sharp division of society into social classes, the restlessness of the poor, and the eventual rise of anticapitalist movements.

Just as the opulence of modern times has diminished the urgency of the problem of production, so it has made possible great contributions to the solution of the problem of distribution. With the rise of the modern social-service, or welfare, state, inequalities in income and consumption have been much reduced. The rich have gotten richer, but so have also the poor, and at a faster rate. As this happened, the appeal of socialism, once so strong in western Europe, has been fading. To the socialist parties, for long committed to a policy of nationalization or socialization of productive resources, this central part of their program, which was so tempting to the masses in the past, has become a political liability.

Modern Economic Problems. Neither production nor distribution is any longer *the* economic problem in the Western world. But while this is

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[1] Paul G. Hoffman, *One Hundred Countries, One and One Quarter Billion People: How to Speed Their Economic Growth and Ours in the 1960's* (Washington, D.C.: Committee for International Economic Growth, 1960), p. 9.

[2] See the book of the same title by John K. Galbraith (Boston: Houghton Mifflin Co., 1958).

[3] The essay, which makes fascinating reading, is reprinted in Keynes's *Essays in Persuasion* (London: Macmillan & Co., Ltd., 1933), pp. 358–73.

true of most countries in western Europe and North America, for the world as a whole the problem of distribution is just as urgent as it was internally, say, in early nineteenth-century England. The leveling tendency, which is characteristic of income distribution in a single country is not paralleled by a similar trend of the world economy. As the advanced countries grow wealthier, the underdeveloped countries follow only haltingly, if at all. International inequalities have not been allayed but have rather become more pronounced. This has created a new economic problem of the first order.

In addition, the people in the advanced countries face the economic problems generated by man's living in the interdependence of the Great Society, where the economic fate of every one is linked with that of others. There are problems of adjustment to change, of stabilization, of control and regulation. Furthermore, while the quantitative problems of production and consumption are no longer as pressing as they were in the past, many thoughtful people, who are concerned about the quality of our civilization, give increasing attention also to the qualitative aspects of production and consumption. Lastly, there are the economic problems generated by past wars, by the present political division of the world, and by the specter of a future war. While we have come so close to the solution of the former economic problem Number 1, this has brought no millennium. We still have important economic problems to resolve.

PUBLIC VALUES AFFECTED BY ECONOMIC PROBLEMS

We can arrange economic problems by bringing them into a relationship to certain public values or social goals. Economic problems may provoke the redefinition of such goals; they may frustrate their attainment or help in bringing it about. The highest, generally endorsed social goals are not the same at all places and at all times, and their definition is no easy matter. In wartime, a plain and forthright order of public values is readily accepted by all citizens. It is an order in which one value, the successful outcome of the war, outranks all others. In peacetime the situation is more complicated. Social goals, then, are not so easily defined, and their endorsement is less universal. It is possible, however, to postulate a small number of broad objectives which rank high in the American scale of values. Such objectives, goals, or public values are progress, security, freedom, and peace. In one way or other the economic problems discussed in this book affect these public values. Most of them affect more than one; their arrangement under the four headings of progress, security, freedom, and peace thus entails a large measure of arbitrariness.

Progress. Of all the ideas which rule man's life, none has been more powerful for the last two centuries than the idea of progress. In the United States the relative lack of class divisions of society, the abundance of natural resources, and the absence of the fetters which kept European social life

more static—all combined to make progress "the leading principle of society."[4] Progress implies change and growth and the need to submit to processes of adjustment which occasionally are painful. It may be that a vigorously growing population creates conditions more favorable to progress than those which attend a stagnant or declining population. This is one of the reasons why a chapter of the present book deals with population problems. Apart from population growth, technological development is the most important factor determining the rate of progress. Technological change may require new economic institutions or impede the working of old ones. That is why atomic energy, in its economic aspects and ramifications, is discussed herein. Progress may be retarded by vested interests which are attached to existing institutions and which resist change. Government regulations may affect progress adversely by decreasing the mobility of economic agents.

Security. Progress has bestowed upon the American people a high level of material well-being, the like of which the world never has seen. Having attained such high level, the American people have come to insist upon economic security. They wish to minimize fluctuations of prices, incomes, and employment. They buy more insurance than any other people and have made provisions to allay the plight of those who are handicapped by the burdens of old age, unemployment, and poverty. They have created legislation to protect investors from some of the hazards that go with the modern business civilization. They have also equipped with additional power groups that suffer from certain economic debilities from which other members of society are free.

The quest for economic security is a relatively new phenomenon in the United States; but since the economic upheaval of the late twenties and early thirties, it has become more and more insistent.

Freedom. We Americans regard freedom as a high, if not the highest, public value. By freedom we mean the participation of the public in political affairs and the absence of certain restraints. The meaning of freedom is symbolized most impressively in the federal constitution and the Bill of Rights. Freedom may be threatened by concentrations of wealth and income and of economic power, by despotic monopolists and tyrannical governments. It is with these more specifically economic aspects of freedom that various chapters herein are concerned.

Peace. The American people also want peace. While they are not attached to militarism, they cannot afford, however, to be indifferent in the face of world unrest and political insecurity. Their participation in world affairs has created new and urgent economic problems. Economic factors are important elements in the maintenance of peace although there has been

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[4] Charles A. Beard, Introduction to J. B. Bury, *The Idea of Progress* (New York: Macmillan Co., 1932), p. xxxi.

a tendency in the past to overrate the purely economic basis of peace or, to look at the matter from another angle, the economic causes of war. To a greater or lesser degree the prosperity of all countries is tied up with prosperity in the United States. Economic distress anywhere in the world, but especially in the United States, may spread and, in the end, set forces in motion that make for war. Prosperity in the United States or anywhere else must not, however, be obtained at the cost of suffering elsewhere. The peace of the world is thus adversely or favorably affected by the international economic policy of any country as well as by domestic policies that bear upon its international economic position.

A Clash of Values. While progress and security, freedom and peace rank supreme in the order of public values, it may, in many a specific instance, be difficult to determine exactly the order in which these four values take precedence among themselves. This is important because the settlement of most issues affects more than one public value: while it may promote one, it may go against the other. This difficulty must not be overrated, however. For example, for all practical purposes, there is never any need to abandon all progress if security is desired or to surrender all economic freedom for the sake of peace. Much more often a small advance in the direction toward one social goal will entail neglect, in a small way, of another. This incompatibility of public values has been pointed out most impressively in the case of progress and security. Progress entails change; security calls for stability. A society which has progressed very far will often be willing to retard the rate of further advance if this is necessary for the sake of greater security. This is so for two reasons. If the level of material wellbeing is high in a country compared with the rest of the world, further advances may seem less desirable than they would be to a poor country. Furthermore, it is often the economically most advanced country which suffers from economic insecurity. Mass unemployment and violent fluctuations of economic activity are plagues that particularly infest mature organisms.

THE STUDY OF ECONOMIC PROBLEMS AND OF ECONOMIC THEORY

Theory and Practice. Public values are much more important in the study of economic problems than they are in that of economic theory or principles. For the sake of illustration, we may compare the relationship between economic theory and practice with that between theoretical mechanics and architecture. An architect who fails to master and apply the rules of theoretical mechanics in his work is liable to construct a building that will collapse. However, the equipment of a good architect consists of much more than mere knowledge of the rules of mechanics. He has to be aware of the requirements of style and fashion, of the manner in which peo-

ple like to arrange their home, of costs and prices, and of the technical possibilities best suited to meet alternative plans.

In a similar fashion the propositions of economic theory are indispensable for the solution of economic problems, just as theoretical mechanics is for architecture. Taken by themselves, however, these propositions may not be immediately applicable to reality. Being abstractions, as they are, they do not mirror the fullness of life but refer to general classes of phenomena rather than to specific issues that are uniquely identified in time and place. To resolve such issues, consideration must be given to historical and political factors and to other forces affecting public valuations, matters from which theoretical analysis tends to abstract.

Recent Developments in Economic Theory. There is a famous statement by Lord Keynes to the effect that "the theory of economics does not furnish a body of settled conclusions immediately applicable to policy." Instead, Lord Keynes points out, "it is a method rather than a doctrine, an apparatus of the mind, a technique of thinking, which helps its possessor to draw correct conclusions."[5] In this sense, economic theory has been referred to as a toolbox from which the analyst draws the equipment when he grapples with his problems.

Happily enough, there are a number of recent developments in theoretical economics which have greatly enhanced the usefulness of the toolbox for the solution of economic problems. As examples, we can refer to the rise of macroeconomics and to the slowly emerging theory of economic policy.

Until very recently the bulk of modern economic theory dealt with small units, such as a single commodity, a single consumer, firm, or industry. Analysis of this "atomistic" type is called microeconomics. It is contrasted with macroeconomics, which handles large aggregates: the national income, the total demand for labor, the volume of employment, etc. Until the thirties the study of aggregates was carried on primarily by those students of economics who were interested in the business cycle. It was only at that time that the study of the special behavior of aggregates during prosperity and depression was widened to include a general theory explaining the determination of their size. Since then, business cycle theory and general economic theory have been more closely integrated. Even so, the microeconomic content continues to hold an important place within the field of theory. Microeconomics is concerned primarily with price and quantity relationships between single commodities and with the economics of the household, firm, and industry. For this reason the connection between much of economic theory and some of the economic problems discussed hereafter may, at first glance, seem tenuous. The student of economic theory is

[5] J. M. Keynes (ed.), "Introduction," *Cambridge Economic Handbooks* (Chicago: University of Chicago Press).

aware, however, of the interrelationship of all economic phenomena, a factor which makes price theory in the narrower sense relevant for the solution of the broader public issues.

Lastly the growth of economic theory has occurred in an environment that was definitely favorable to the development of a pronounced laissez-faire bias. Economic theory came to be an apology of a business order based on laissez faire, and laissez faire supplied the principal assumptions of economic theory. Of late, however, there is beginning to emerge a theory of the economic policy of the government, which more adequately reflects the tremendous expansion of government intervention in economic affairs. Be this for better or for worse, many of the great economic problems of our age spring from government intervention or from the demand for it. A study of economic problems, hence, is concerned with public policy to a significant extent. The economic theory of public policy is most highly developed in the field of money and credit and in the realm of fiscal theory, which treats of the effect on the economy of government revenues and expenditures. As everybody knows, these have grown enormously in modern times. Fiscal theory, as it has developed over the past few decades, has become an indispensable aid in the solution of important economic problems.

Methods of Economic Research. Modern economic research often combines theoretical and applied economics. Economic theory provides a "model," that is, an abstract construction in which the economically relevant variables—income, price, output, etc.—appear in a generalized form, freed from the concrete detail of time and place such as would characterize notions like "the United States income in 1960" or "the price of steel in the United Kingdom in 1961." A very simple model is expressed in the famous law of demand which states that the quantity demanded of a good increases as the price falls. One of the many specific applications of the law of demand and of other economic laws is the well-known corn-hog cycle: if there is plenty of low-priced corn and relatively few high-priced hogs, more corn will be sold because the farmers will want to raise more hogs. This makes the price of corn go up, while the price of hogs falls as more come to the market. When the relationship between the price of corn and the price of hogs has changed to such an extent that it becomes unprofitable to raise hogs, less corn will be sold and its price will decline. Hogs will become scarcer and their price will increase. Eventually a new cycle will start all over again.

The law of demand and the corn-hog cycle are hypothetical models or theoretical constructions which may or may not reflect what goes on in reality here and today. To test the models, that is, to find out whether or not they reflect the situation that exists in the world of time and space, further investigations are needed, and these constitute the bulk of the research work going on in economics. Ordinarily the testing of theoretical models is done with the help of economic statistics, which enables the investigator

to marshal large amounts of quantitative data. This is needed because economic research, as a rule, does not aim at verifying the conformity of individual behavior with the behavior expected in the light of the theoretical model. Whether farmers Jones and Smith behave as indicated by the corn-hog cycle is a matter that can be investigated with relatively small difficulty, but it is also a matter of relatively small importance. Instead, economic research typically tests the validity of hypothetical models as applied to behavior in the mass and on the average, and for the operations involved in such testing, statistical techniques often are indispensable. For example, if it is not convenient to explore the responses of all farmers to changes in prices, the statistical method known as "sampling" may provide a short cut. Or, to express the relationship between changes in price and output, the statistical method of correlation analysis may be of help. The study of mass behavior, in turn, may facilitate the making of predictions, usually and at best hypothetical ones, which state that under certain circumstances certain events are likely to take place. Predictions make possible control—of excessive price fluctuations, of the business cycle, etc.

Economic research that has the purpose of serving as the basis for prediction and control is said to be policy oriented. Some such research requires more, and other less, statistics. But most of it is quantitatively oriented, that is, the researcher usually will want to develop his findings in terms of figures.

THE UNITY OF ECONOMICS

The student of economic problems runs the risk that, over the diversity of live issues, he will lose sight of the fundamental unity of economics. The unity exists in the concept of an interdependent economic system. Some approaches in economics reveal this unity better than others. The three most important devices for elucidating it are the price system, the national income, and general-equilibrium analysis.

The Price System. (1) The unity of economics is revealed by the price system, a concept that presents a greatly simplified picture of reality. In the price system, productive resources are allocated to industries and firms in response to consumer preferences. Consumers express their preference by means of price offers. The diversity of such offers promotes expansion in some lines of production and contraction in others. The entrepreneurs' ability to bid for productive factors is conditioned by consumer preferences. Thus there is a flow of resources into employments that serve best the wants of the consumers. Their ability to pay, in turn, is, in part at least, determined by the prices which they receive for their productive services, and these again depend on the usefulness of their services in relation to the desires of the consumers. The whole economy thus can be visualized as a flow of productive services from their owners to entrepreneurs and a flow

of goods from the entrepreneurs, organized in firms, to the consumers, who are identical with the owners of the productive services.

By focusing emphasis on the function of prices, this analysis neglects the role of nonmonetary incentives, monopolistic power, and collective action. Nonmonetary incentives, immobility, and friction may divert productive resources from the channels designed for them by the price system. The same diversionary effect may be produced by the power of monopolists and pressure groups. The price system is a helpful explanation, however, of some fundamental characteristics of our economy. It brings its unity into sharp relief.

The National Income. (2) The national income concept is discussed more fully in Chapter 5. It is, in the first line, a method of social accounting, supplying a pattern into which the various economically relevant transactions are woven. Goods and services are produced by means of a process in which the factors of production co-operate. The sum total of the goods and services produced during a given period of, say, one year—properly adjusted to prevent double counting—is the national income. It is equal to the returns to the factors of production (owners of productive services), who consume or invest it. To define the concept more precisely, account must be taken of foreign payments and receipts and the expenditures and disbursements of the government. The study of the national income thus contains in a nutshell all the problems to study of which this book is devoted.

General-Equilibrium Analysis. (3) The third method of elucidating the unity of the economic system is called general-equilibrium analysis. This is a rather difficult matter which best can be understood if compared with ordinary demand and supply analysis. This, often referred to as partial-equilibrium analysis (of the firm or industry), explains the equilibrium price of a commodity or productive factor on the assumption that other prices do not change.[6] General-equilibrium analysis, on the other hand, recognizes the interdependence of all prices. All commodities and factors are substitutes of varying degrees of closeness. The demand for a commodity or factor is not only determined by its price but also by the prices of all other commodities and factors, and the same is true of supply. General-equilibrium analysis is chiefly the work of the French economist Léon Walras (1837–1910). It is considerably more abstract and of less realistic content than the more practical common-sense approach of his British contemporary, Alfred Marshall (1842–1924), whose demand and supply analysis reflects partial equilibrium. But its central idea, the interdependence of

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[6] Equilibrium prevails when the forces in question come to rest and do not press for a change. In economic theory, equilibrium often is postulated under conditions that maximize the advantages of the participating economic agents. In the case of competition, the equilibrium price is equal to marginal cost and equates demand and supply of the market. Under monopoly, it is the demand price for an output at which marginal cost equals marginal revenue.

all economic phenomena, is of great value for the understanding of the unity of economic life. On the loftier plane of the poetic figure of speech, general-equilibrium theory shows that

> ". . . . thou canst not stir a flower
> Without troubling of a star."

Of late, general-equilibrium analysis has been given realistic content by a new technique known as interindustry, or "input-output," analysis.[7] This approach is based upon the idea that a transaction, from the seller's point of view, may be interpreted as a sale of output, while from the buyer's point of view the same transaction is a purchase of input. A table may be constructed, as much or as little condensed as is desired, in which, on the left side, the various sellers of goods and services are listed—agriculture, manufacturing industries, public utilities, transportation and financial enterprises, construction, sellers of labor and of the services of other productive resources, etc. Along the top of the table, there are listed, in the same order, the various buyers of goods and services. Any entry in the table indicates how much a certain industry—listed on the top—purchases from another industry—listed on the left side—for example, how much the motor vehicle industry purchases from the rubber products industry.

Obviously, there is a close relationship between the value of the output of any single industry—its sales—and the value of its input—its purchases. Less obvious, but existing nevertheless, is the relationship of interdependence which prevails between any single entry in the table and all other entries. For example, a change in the sales of the motor vehicle industry—say, an increase—will be attended by an increase in the sales of the many industries serving as suppliers of the motor vehicle industry. These industries, in turn, will raise their purchases from other industries, and so forth, until the effects of the initial change are diffused over the whole economy. Input-output analysis has many uses. Agencies concerned with industrial mobilization, for instance, may calculate, with the help of input-output analysis, how a given change in missile production affects all other industries. The role of "bottlenecks" and of tight foreign supplies will be brought into sharp relief.

SUMMARY

Economic problems affect public values, such as progress, security, freedom, and peace. These rank high among the goals cherished by the public, but their order of precedence is not easily determined. Sometimes the set-

[7] Wassily W. Leontief, *The Structure of American Economy, 1919–1939* (New York: Oxford University Press, 1951). For a simple introduction the student may consult Leontief's article, "The Economics of Industrial Interdependence," *Dun's Review*, February, 1946, pp. 22 ff., or his "Input-Output Economics," *Scientific American*, October, 1951.

tlement of an economic issue requires a decision in which a small advance toward the realization of one value is obtained at the cost of sacrificing a bit of another.

The study of economic problems is closely related to that of economic theory. Both approaches are complementary. Theory deals with classes of phenomena; problems, with specific issues. Recent advances in economic theory have enhanced its usefulness for the solution of economic problems. Macroeconomics, the study of the behavior of aggregates, has come to share attention with microeconomics, concerned with small economic units. The rise of fiscal policy may in time usher in a full-fledged theory of the economic policy of the government.

The student of economic problems runs the risk of neglecting the unity of all economic phenomena when he investigates issues of great diversity. This unity can be elucidated with the help of the national income concept, of the price system, and of general-equilibrium analysis.

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The factual material indispensable for the study of economic problems is available in a number of periodicals. Most important among these is the *Statistical Abstract of the United States,* an annual publication of the Bureau of the Census. References to other census materials are supplied therein. Useful monthly publications of the government are: *Survey of Current Business, Monthly Labor Review,* and *Federal Reserve Bulletin,* published by the Department of Commerce, Department of Labor, and Board of Governors of the Federal Reserve System, respectively. The first deals with business problems in the broadest sense; the second, with labor problems; and the third specializes in monetary and banking matters. All these publications, with the exception of the *Federal Reserve Bulletin,* can be obtained from the Government Printing Office, Washing-

ton, D.C. The *Federal Reserve Bulletin* is issued by the Federal Reserve Board.

The very latest statistical data are published in a concise form in the monthly *Economic Indicators*, prepared for the Joint Economic Committee by the Council of Economic Advisers and available from the Government Printing Office. Valuable current material of economic relevance may also be found in the *Annual Reports* of the various government agencies, including the *Economic Report* of the President, which is published every year in January, and the reports of the various departments and regulatory commissions. All these are distributed by the U.S. Government Printing Office.

The most interesting and informative weekly periodical in the field of economics is *The Economist*, a distinguished British publication that offers an analysis of American news as a regular feature and is widely read in this country, where an airmail edition is available a day or so after publication. Its American counterpart is *Business Week*, published by the McGraw-Hill Publishing Company, which harbors an outstanding economics department. The study of these periodicals may be supplemented by that of *Fortune*, a monthly publication by the publishers of *Time* and *Life* that is devoted to business problems. Of the daily papers, those providing most information on economic and financial matters are the New York *Times* and the *Wall Street Journal*, both published in New York and the latter printed every day in several key cities throughout the country.

STUDY QUESTIONS

1. Why do we study economic problems?
2. Has the problem of production been solved?
3. What was Keynes' view about the problem of production?
4. Does the majority of mankind live in an "affluent society"?
5. Is there a possibility of a conflict between economic progress and security?
6. In what way does economic theory help in the study of economic problems?
7. Can economic problems be resolved with the help of economic theory alone?
8. Discuss some recent developments in economic theory which have turned it into a more useful instrument in the solution of economic problems.
9. In what way does the concept of the price system reveal the role of prices in our economy?
10. What type of equilibrium analysis was developed by Walras, and what type by Marshall?
11. What is input-output analysis?
12. What is the corn-hog cycle?
13. What is an economic "model"?
14. In what sense is it true that economic research is characterized by a quantitative orientation?
15. Why is prediction an important goal of economic research?
16. What is the relationship between economic research and statistics?
17. What do you consider the most important economic problem of the world, of the United States, of your home state, and of your city?
18. Can all economic problems be resolved by government action?

19. Open up today's newspaper and list the economic problems which are mentioned therein. Which can be solved and which defy a solution? As regards those which can be solved, is knowledge of the principles of economics the only equipment needed for their solution?
20. Prepare a list of publications containing material relevant to the economic problems of the region in which you reside.

II. *ROADS TO ECONOMIC PROGRESS*

Chapter 2 — POPULATION PROBLEMS

The quantity and quality of the American people account for much of the economic progress in the United States. Vigorous population growth, resulting in large conglomerations of people, has created a vast market and ample opportunities for the application of mass-production methods and economies of scale. At the same time the quality of the American people has been conducive to high-level efficiency.

Man, the smallest unit of which population consists, appears on the economic stage in a twofold role. He is producer, joining his force with that of nature in the process of production. He is also consumer, and his satisfaction is an important function of all economic activity.

Man as Producer. As a producer, man fulfills three distinct functions. (1) The most fundamental of these is that of supplying labor, commonly defined in economic science as any human effort that commands a price. But labor is not the only human factor of production. (2) There is also the function of determining the quantity and quality in which labor and other factors of production—land and capital—shall be combined in a specific productive process or business unit. This function of proportioning the factors of production, together with that of initiating the business before it is started and assuming its supreme direction once this has been done, is called managerial or entrepreneurial; and the person who fulfills it, a manager or an entrepreneur. (3) Capital and land, which together with labor and enterprise make up the four factors of production, do not appear on the economic scene as inanimate things. Their relevance to the productive

process is based on their ability to provide services, just as is true of labor and entrepreneur. Under the law, there is generally somebody who holds legal title to land and capital and thus controls the services they provide. He may withhold them or provide them more freely. This person, the proprietor, is sometimes a natural person, sometimes a corporate entity. As corporations, in the last analysis, are controlled by human beings, the human factor is thus important also for this aspect of the productive process.

Man as Consumer. In a society where a low level of material welfare prevails (where, in other words, consumption just barely suffices to meet the elemental requirements of existence) man's function as producer stands out. If poverty is the rule, principal attention is placed on goods immediately available for consumption, and what is produced will most readily be consumed. In more advanced societies, this may tend to be different. Where wealth has been accumulated and the standard of living is high, it may become more difficult to dispose of current production. This difficulty may be allayed, to some extent, under conditions of vigorous population growth. If every year there is a substantial natural increase in the population, for a relatively long period the newcomers will be relevant as consumers only and not as producers. There will thus be a greater opportunity for finding markets that absorb current output than is true when the population is declining, stationary, or when its rate of growth is falling.

Relevant Population Characteristics. Birth and death rates, age distribution, migration, population growth and decline—all are matters that fall under the heading of quantity. They will be discussed in the next section in greater detail. But important also is the quality of the population and its distribution. The health and education of the population are characteristics that stand out most strikingly in an appraisal of its economic significance. A discussion of these aspects will conclude this chapter.

QUANTITY OF THE POPULATION

Tools of Measurement. The more important measurements usually applied to ascertain population quantities are birth rates, death rates, infant mortality rates, and rates of natural increase. A rate indicates a quantity in its relation to another quantity. Thus, birth and death rates give the numbers of births and deaths in a given year per thousand people. Infant mortality rates give the number of babies who die below the age of one per thousand live births in a given year. Rates of natural increase are the excess of birth rates over death rates.

Where Do We Stand? The population of the world has grown at a rapid rate during the past three centuries. There were less than half a billion people in the world 300 years ago, and there are now close to 3 billion. Growth has been facilitated by the development of health care and popular hygiene, by technology, trade, and economic progress. But it has, by the

same token, promoted in its turn these developments. Industrial progress seems to go hand in hand with large agglomerations of people, urbanization, and the growth of mass consumption and production.

The population of the world is at present increasing at a rate of over 1 per cent, perhaps 1.7 per cent, per year. Growth at this rate, provided that it continues, means duplication in about forty years. It is not certain, however, whether world population will continue to grow at the same rate in the future, although during the centuries of the immediate past the rate has been increasing steadily, having perhaps doubled over the past hundred years. This over-all rate, which reflects the growth of the population of the whole world, does not hold true at all places. There are important differences between regions and peoples, some increasing at a faster and others at a slower rate. Indeed, since the turn of the century, the rate of population growth—not the population—has declined in many countries and perhaps will continue to do so in the future.

In Europe (including U.S.S.R.), for example, the population increased by 19 per cent from 1900 to 1925, and by 14 per cent only from 1925–50. In America north of Mexico the increase was 56 per cent in the first quarter-century, and 33 per cent in the second. However, in such parts of the world as Africa, Asia, and Latin America the percentage increase during the second quarter was substantially larger than during the first.

The data indicate that the decline in the rate of population growth was especially pronounced in western Europe. Until recently, such a decline has been a characteristic feature also of the United States. Where such a decline occurs, it reflects a long-time fall of both birth and death rates, with birth rates falling faster than death rates. To bring this disproportionate fall of the two rates into sharper relief, we may distinguish between the advanced countries and the underdeveloped countries. In many highly developed countries the decline in death rates was more pronounced during earlier decades at a time when the more important advances in medical science and care were made. In the backward countries, however, where it is only now that these advances are felt, there is still great opportunity for a further decline of the death rate. In these countries, population growth now is most vigorous. In the advanced countries of western Europe, on the other hand, population growth is slowing down; the decline in the death rate is primarily an event that occurred in the past and is no longer strong enough to offset to a significant extent the decline of the birth rate. In the less advanced countries, birth rates as yet do not go down so fast, and there the current decline in death rates is more pronounced.

What applies to the world as a whole is also true within the confines of a single country. In its more highly developed parts the decline in the rate of growth is most impressive, because there the fall of birth rates is more rapid than that of death rates: the latter movement has spent itself largely in the past. The same is also true of different socio-economic groups

within a given region: people on the top level, defined in social or economic terms, tend to have fewer children than the poor, and among them death rates are not declining very fast any longer.

There is some evidence that the decline in birth rates is due to voluntary restriction, not to any deterioration of fertility. Voluntary restriction apparently is practiced more widely and more successfully among people of higher social and economic status. Hence a situation has arisen where many of those who financially can best afford parenthood have a small number of children. This statement holds true also in a somewhat different sense: many countries which are materially well off have low birth rates, and those which are poor have high ones.

Population Data. In the quarter century between the outbreak of World Wars I and II, birth rates in the United States fell from 25 to 18, while death rates declined from 14 to 11. The difference between both rathes thus continuously grew smaller. So it was in other advanced countries. In England and Wales, for example, birth rates declined from 22 to 16, and death rates from 14 to 12 during the same period. But in a country like India, birth rates fell from 39 to 34 and death rates from 30 to 22; there the impact of advances in health care and popular hygiene is of most recent origin and the use of restrictions on parenthood not widespread. Therefore the difference between birth and death rates actually increased, making for a faster rate of natural growth. A country like India represents the extreme case; other countries hold middle ground between India and the advanced countries of western Europe. Relative differences in the decline of birth and death rates indicate fairly safely the respective stages of economic development among different countries.

The United States birth rate, which had reached a low of 16.6 in 1933, recovered to 25 in 1953, returning to a level which had prevailed in 1915. Throughout the 1950's, the birth rate continued at this high level of 24 and above. The death rate, 14 in 1915, is now less than 10. This accounts for a present rate of natural increase of 17, which is about the same as the rate of natural increase for the rest of the world. The development in the United States is shown in Fig. 1.

The upsurge of the birth rate reflects, first of all, a rapid rise of the marriage rate. Relatively more people marry, and they do so at an earlier age than was true in the past. It appears also that many families have revised previously prevailing ideas about the desirable number of children. Since the early forties, there has been an increase in the birth rates, not only of first and second children, but of third and fourth children as well. The identification of the factors responsible for this new attitude raises many questions without providing conclusive answers.

Perhaps the style of life in the suburbs, the residence of over 50 million people in 1960, has something to do with it. Another factor may be the high level of economic prosperity prevailing since the early forties and the bene-

fits which this has conveyed upon low- and middle-income groups. Incidentally, it is interesting to note that the increasing employment of women in jobs outside of the home has not proved an obstacle to rising birth rates.

The rise of the birth rate in the United States has been attended by circumstances which may compel a re-examination of previously held notions concerning the widespread importance of differential birth rates. Apparently, birth rates are no longer negatively correlated with income, education, and social status to the extent to which this was true before World War II. Percentagewise the increase in birth rates was most pronounced in nonfarm areas and in states characterized by low rates. This has significantly reduced the rural-urban birth-rate differential, so much so that for the first time in about fifty years, the urban population has been able to maintain its numerical strength without reliance on migration from the rural areas.

United States Vital Statistics

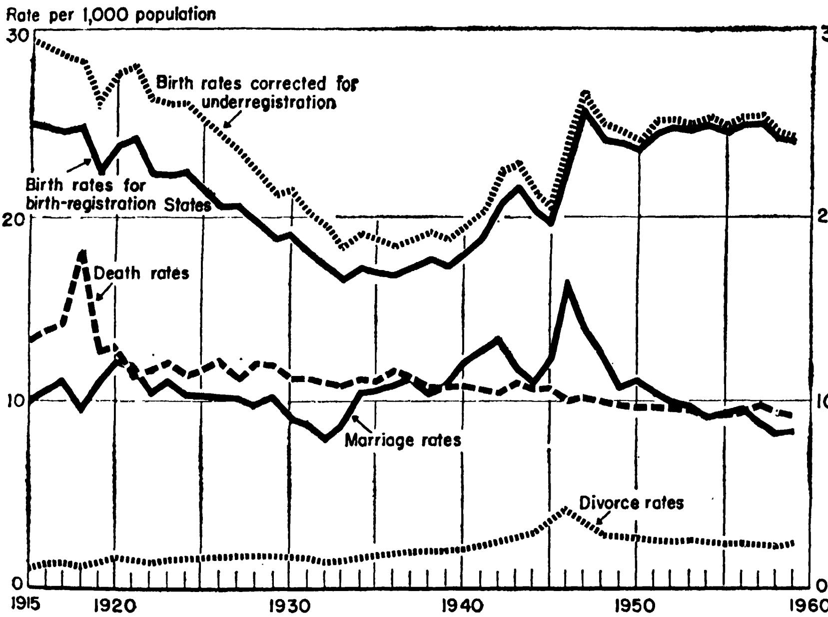

FIG. 1. Notice the upsurge of the birth rate since the mid-forties, the relative stability of the death rate in recent decades, and the temporary rise of the marriage rate after World War II. Source: Department of Health, Education, and Welfare, Public Health Service, National Office of Vital Statistics. From *Statistical Abstract,* 1960, p. 51.

The Population Outlook. With the world adding approximately 50 million people, more than the population of France, to its numbers every year, and with the rates of natural increase widely differing from country to country, the distribution of the world's population is likely to undergo profound changes in the decades to come.

Communist China, the country with the largest population, estimated at over 650 million for 1960, may reach 800 million by 1970, and 900 million by 1975. India, second largest in terms of population, had over 400 million in 1960, and may have over 500 million in 1970 and over 550 million in 1975. Soviet Russia, 215 million in 1960, may increase to 254 million and 275 million in 1970 and 1975 respectively. The United States population, approximately 180 million in 1960, may have passed the 200-million mark by 1970, and may reach 217 million in 1975.

If present tendencies continue, Asia will hold 60 per cent of the world's population by the year 2000. The share of Europe, now about 14 per cent, will have fallen to 10. About the same share will then be held by Latin America, with North America constituting an estimated 5 per cent. All this, in conjunction with the diffusion of industry throughout the world, is liable to weaken the leading position of the old centers of Western civilization. However, it is by no means certain that population growth in Asia will continue at the same rates which were observed in the past. Possibly, as industrialization and urbanization proceed, they will be accompanied by lower birth rates, as they were in the West. Some countries have adopted policies of restricting the potential number of their people by practices about which opinion in the West is divided, as the teachings of some of the great religions reject birth control. Japan, which has gone farther than any other country in this respect, has legalized both abortion and birth control, and its birth rate has fallen from 34 in the late 1940's to half that much ten years later. Similar aims are pursued in India, where the government pays a premium for sterilization and subsidizes the sale of contraceptives. Although there were at times, during the 1950's, similar policies advocated in Communist China, these have been abandoned after some vacillations. The official communist doctrine opposes restrictions on population growth and adheres to the belief that speedy industrialization can provide for unlimited numbers of people.

Population Movements. Birth and death rates are not the only factors that determine population growth and decline. The size of the population is also affected by immigration and emigration. Much of the population growth of the United States until World War I was the result of liberal immigration policies. Immigration was completely unrestrained until 1882. Since then, it has gradually been subjected to curbs of increasing severity. This was done in two stages. There was, first, an ever-multiplying enumeration of ineligible persons, a policy which in 1917 culminated in the requirement of a literacy test, introduced by legislation passed over the veto of three Presidents. Finally, in 1921, the quota system was established, which in its present form distributes a total annual quota of 154,000 immigrants among the various countries in the same proportion in which these had made contributions to the American stock in 1920. The bulk of the quota goes to

the countries of northern Europe. As a result of administrative practice, the total quota is never filled, and immigration has ceased to be of significance with respect to the quantity of the United States population. The foreign-born population is steadily declining. While in 1910 it was still close to 15 per cent of the total population, it is now less than 7 per cent.

Many pieces of immigration legislation enacted during the past few decades have been codified in the Immigration and Nationality Act of 1952, generally known as the McCarran-Walter Act. This act, which was passed over a presidential veto, reaffirms the spirit of restrictionism that had been rampant since the close of World War I. The President, in his veto message, pointed out that "the bill would make it even more difficult to enter our country. Our resident aliens would be more easily separated from homes and families under grounds of deportation, both new and old, which would specifically be made retroactive. Admission to our citizenship would be made more difficult; expulsion from our citizenship would be made easier. Certain rights of native-born, first-generation Americans would be limited. All our citizens returning from abroad would be subjected to serious risk of unreasonable invasions of privacy. Seldom has a bill exhibited the distrust evidenced here for citizens and aliens alike—at a time when we need unity at home and the confidence of our friends abroad." Movements are afoot for a liberalization of the McCarran-Walter Act to bring our present attitude toward immigrants and naturalized citizens more in line with the great American tradition, but so far they have not been successful.

Numerically more important than permanent immigration to the United States is the seasonal inflow of farm labor from Mexico, which every year brings over 400,000 farm hands to the Southwest and many other parts of the country. The admission of these people—formerly known as "wetbacks" because they sought entry by swimming or wading the Rio Grande—has been regularized in response to the needs of the employers, but their economic position is a highly precarious one, and they are considered a threat to the status of domestic farm labor.

The liberal institutions of the nineteenth century were more favorable to population movements than is the spirit of economic nationalism which characterizes our present age. Under liberalism the obstacle to migration represented by national boundaries had all but faded away; those who wanted to move in response to economic opportunities enjoyed a large measure of freedom to do so. Population movements on the whole reflected the push of economic adversity in the country of origin and the pull of economic opportunity in the country of destination. Except for national calamities such as the potato famines in Ireland in the late 1840's, the immigration movement to the United States has apparently been dominated by highly favorable conditions in the country of destination, the pull proving stronger than any push. During the nineteenth and early twentieth

centuries, United States immigration has, on the whole, followed fairly closely the fluctuations of business activity in the United States, falling off in bad times and increasing during periods of prosperity.

The movement of immigrants to the United States was accompanied by a heavy inflow of capital, which often originated in the same country that also contributed the immigrants. About two thirds of all British emigrants between 1870 and 1900 went to the United States, which at that time was Britain's principal debtor. The waves of capital, together with those of immigration, tended to increase during prosperity and to decline during depressions. In a capital-exporting country such as Britain, emigration tended to reduce the domestic capital requirements, especially for housing, while in the United States the increase in the labor force, swollen by immigration, held in check the cost of labor and of investment, accelerated the development of the country and induced additional investment to house and equip the newcomers. Indeed, during the long period from about 1850 to the beginning of World War I, a peak of building activity in the United States tended to coincide with a trough of building activity in the United Kingdom; and troughs in the United Kingdom coincided with peaks in the United States.[1]

During the nineteenth century, people who were located in countries where their productivity was low were free to move to countries where their productivity would be higher. Low-productivity countries are overpopulated; high-productivity countries, underpopulated. Both concepts are relative in a twofold sense: there is over- or underpopulation of a given country only in relation to other countries; and, with a given population, a country may be over- or underpopulated, depending upon the quality of its population, available capital equipment and natural resources, and the state of technology. Overpopulation often is the symptom of profound maladjustments which could be cured by means of a more adequate social organization, improvements in education and technology, and more ample provisions for capital equipment.

Population density is no indication of a country's over- or underpopulation. Both the United Kingdom and Australia enjoy a standard of living which compares not unfavorably with that in the United States. This they do in spite of the fact that ten times as many people live on a square mile of English land and that one square mile in Australia is inhabited by one twentieth of the number of people who occupy the same area in the United States. The population densities which prevail in the different countries would be comparable only if all other relevant factors were alike: quality

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[1] See Harry Jerome, *Migration and Business Cycles* (New York: National Bureau of Economic Research, 1926), p. 208; A. K. Cairncross, *Home and Foreign Investment 1870 1913* (Cambridge, England: University Press, 1953), pp. 209 ff.; Brinley Thomas, *Migration and Economic Growth: A Study of Great Britain and the Atlantic Economy* (Cambridge, England: University Press, 1954), pp. 175 ff.

of the population, natural resources, capital equipment, technology, and economically relevant social and political organization. A country in which these factors are conducive to high-level productivity may enjoy the same standard of living which prevails in other countries with either higher or lower population density.

The Optimum Population. The idea of an optimum population has of late come into wider usage. It can be given two different interpretations. The optimum may, in the first place, be considered from the point of view of a citizen of the world. Emphasis is then placed on the distribution of the total world population, and the cosmopolitan optimum prevails when there is no national difference in the marginal productivity of labor—that is, when the value of an extra worker's contribution to the national output is the same everywhere. The total productivity of labor throughout the world would be maximized under such conditions, and there would then be no further inducement to emigration and immigration. Countries which were over- or underpopulated would cease to be so. Such equalization of marginal productivities could come about not only through population movements. Overpopulation, as has been seen, is often an indication of maladjustments of various types which depress productivity. Low-productivity countries can improve their status not only through emigration but also, and often better so, through social and economic reorganization, more ample provisions of capital, and improvements in education.

In another sense, people refer to the concept of optimum population from the point of view of a single country. This is an analogy to the optimum combination of the factors of production in the firm. In microeconomics the optimum is defined in terms of maximum total profits. At first glance, it may seem appropriate to define the population optimum in terms of maximum total income. This would be rather meaningless, however, because the total size of the income is relevant only in relation to the number of persons among whom it is distributed. For this reason, it may seem preferable to define the population optimum in terms of maximum per capita income; it would then refer to a situation where an increase or decrease of the population would spell lower per capita incomes. In practice, however, no country's population policy is based on the consideration of an optimum defined exclusively in economic terms. Such divers motives as welfare, power, and prestige play an important role in these matters. Governments that are more welfare-conscious may define as optimum a situation in which indexes of social well-being, such as the standard of living or family budgets of representative groups, are maximized. Governments that are inspired by other motives may consider as optimum a population whose strategic value is greatest. In any event, it will generally be difficult to evaluate numerically the optimum. Technologies and the application of capital change all the time in advanced societies, and their change is in turn a function of many variables, including the size of the population. Such

change entails re-evaluation of the optimum, a concept which thus has little meaning in an operational sense—that is, it is extremely difficult, if not impossible, to calculate it numerically.

Population and Economic Theory. If one wants to express in a nut shell the changing attitude of the economics profession to population growth, one can say that the older economists were more concerned with the limits of production while the newer ones emphasize the apparently endless horizon of consumption. The shift in emphasis reflects the great advances in technology and production which have characterized the development in western Europe and North America since the Industrial Revolution. Most economic ideas have sprung from these regions of the world. One hundred and fifty years ago the British economist Thomas R. Malthus (1766–1834) expressed fear that the increase in population would tend to outrun available food supplies. Population, so he taught, would be kept within the limits of subsistence only by the operation of "checks"—i.e., vice, misery, and moral restraint. Vice and misery would operate by killing people off; moral restraint would prevent them from being born. Malthus' views came to serve as a rationalization of the reactionary ideology of his time. They were helpful in obstructing attempts at improving British poor relief and measures aiming at social reform. In the light of Malthus' teaching, such policies appeared worse than useless. Their harmful and obnoxious character resulted from the fact that they would have impeded the operation of the checks and thus have caused food supplies to fall short of the requirements of an ever-growing population. Malthus' doctrine seemed to gain powerful support from the law of diminishing returns, which pointed towards a decline in agricultural output per unit of a swiftly increasing farm labor force.

Malthus' views were immediately attacked, especially by men of different political leanings. They have, nevertheless, exerted a powerful influence on the thinking of many generations. We are still captives in the house that Malthus built when we, as so many of us do, associate a small population or low density of population with a high standard of living. Malthus assumed a niggardliness of nature which did not prove true in those parts of the world where modern technologies were applied to agriculture. Before the advent of World War II, there was an oversupply of agricultural staples at the international markets, brought about, to be sure, not only by improvements in agricultural technology but also by the protectionistic policies of many countries which stimulated the production of foodstuffs. During the 1950's, complaints were heard again in many parts of the world about agricultural surpluses.

If, in the future, population growth should outrun available resources, one would perhaps be more inclined to be concerned about the depletion of exhaustible resources, coal and oil in particular, than about food resources. But the need for exhaustible resources is a function of ever-chang-

ing technologies; technological progress may well enable us to dispense with those which have become more fully depleted. To be on the safe side, however, policies of conservation commend themselves and deserve the support of all good citizens. Many thoughtful scholars are deeply concerned about the prospects of a world that squanders its heritage of natural resources.

In some underdeveloped countries rapid population growth is considered a serious obstacle to economic progress. The position in which these countries find themselves is more fully discussed elsewhere in this book (see p. 619). In the United States, where capital and natural resources are plentiful, vigorous population growth constitutes no imminent threat to the economy. Contrariwise, such growth has a number of desirable economic effects. It facilitates adjustment to technological change and stimulates the demand for capital.

Population Growth Minimizes Need for Adjustments. (1) The one effect, and there is little dispute about this, is related to technological change and growth. If such changes occur—if, for example, a given amount of food can be produced with the help of fewer resources—there would, under the price system, take place a movement of productive resources away from, say, wheat production, and into other employments. This would happen under the influence of economic incentives which place a higher value and reward on the additional production of something other than wheat, be it a good or service. Now, a movement of this type may be rather painful for those owners of resources (land, labor, capital) who have to do the moving. Workers may have to acquire new skills, and land and capital may have to be put to a new use. Sometimes this may not be possible at all, when, for example, workers are not capable of acquiring new skills, and when there are no alternative uses for certain types of land or capital. Hardships are thus involved when adjustments are carried out, and still greater hardships, when they are not carried out.

Now, under conditions of vigorous population growth, the need for adjustments of this type will be minimized. Even though the per capita consumption of the commodity which can be produced more efficiently may remain constant, it may not be necessary to shift resources to any great extent if the increased output can be absorbed by additional people. In this way the clash between progress—larger output per factor input—and security—stable employment and assured income—may be eased. That is what has happened in countless instances since the Industrial Revolution.

Population Growth and Demand for Capital. (2) People must be housed, fed, and equipped with tools to do their work. If their number increases rapidly, so will the demand for capital. Lord Keynes at one time estimated that in the fifty years before World War I, nearly one half of the entire British investment of capital was required to provide shelter, to feed, and to prepare jobs for the increase in the population. Experts are

inclined to calculate a somewhat lower estimate for the United States. However, during the Great Depression of the 1930's, when the demand for capital was heavily reduced, there also occurred an unprecedented decline in population growth, and many observers established a causal relationship between the two phenomena. For the first time since the founding of the Republic, this decade saw a huge decline in the absolute numbers of the decennial increment to the population, from 17 million in the 1920's to less than 9 million in the 1930's.

Adjustments to the Population Upsurge. For the time being, at least, the economic consequences of a declining rate of population growth are only of academic interest in the United States. The upsurge of the birth rate has raised the percentage growth of the population to almost 15 per cent during the forties, compared with 7 per cent during the preceding decade. In absolute numbers the increment rose from 9 million during the thirties to 19 million during the forties. The population increment for the decade of the fifties was in the neighborhood of 30 million.

The persistent increase in the birth rate caught many students of population statistics by surprise. Virtually all estimates which had been made of the future population of the United States proved wrong. As late as in 1946 the Bureau of the Census indicated 165 million as our probable peak population, to be reached about 1990. Actually, our population has grown to that size within less than ten years after the forecast was made. The fact that we live in a rapidly expanding, dynamic economy has dispelled much of the gloom generated during the depression years of the thirties, with their low rate of population growth. A rapidly rising population is no threat to our living standards, because our output of goods and services increases much faster, perhaps twice as fast. Only the future can tell whether, and to what extent, a quickly increasing population will have to face certain shortages of materials. It is possible, for example, that within fifteen or twenty years the availability of ordinary water will constitute a major resource problem. This might be resolved by the conversion of sea water into fresh water, a process the cost of which has been much reduced over the past several decades and on which further progress is expected. With respect to energy requirements, it has been estimated that the production of mineral fuels will have to be doubled from 1958 to 1975 to meet the demand for energy, possibly to be doubled again during the period from 1975 to 2000. While there are large domestic reserves of many minerals, the demand for certain others requires imports. Population growth is just one of the determinants of our future mineral requirements. In addition, there must be considered such matters as substitution among minerals, for example, of aluminum for copper and iron, substitution of synthetic materials for minerals, the more efficient recovery of minerals, and their more efficient use. Improvements along all of these lines make it unlikely that there will be

shortages within the next few decades, but a policy of conservation to take care of the needs of the generations yet to come is no doubt called for.[2]

With respect to requirements for other goods and services, upward revisions must be made because of the requirements of young people, now so much larger in number than was expected only a few decades ago (see Fig. 2). There will be occasion to refer to some of these matters in the following section.

POPULATION GROWTH IN THE UNITED STATES, AND AGE COMPOSITION OF THE POPULATION

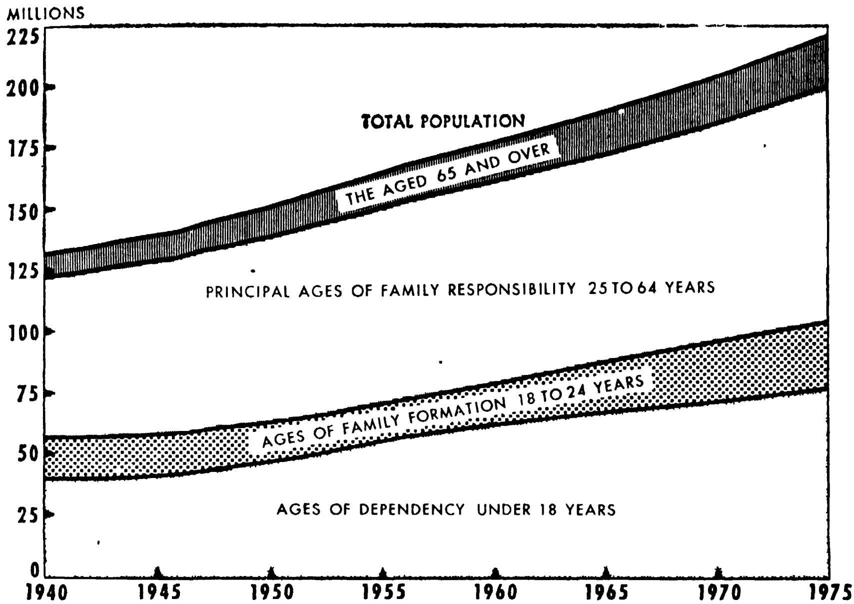

FIG. 2. Note the increase in the number of young people. Figures for 1940–56 are from Census data, with Census projections to 1975. From Metropolitan Life Insurance Company, *Statistical Bulletin* January, 1957, p. 6.

QUALITY OF THE POPULATION

Health and education stand out among the qualities of the population which are most relevant to the economist. This is so because health and education are important determinants of productivity. Both in education and health care the United States ranks high. This does not mean that per-

[2] See "Resources for a Growing Population," U.S. Department of the Interior, *Annual Report*, 1959 (Washington, D.C.: U.S. Government Printing Office, 1960); Edward A. Ackerman, "Water Resources in the United States," Resources for the Future, Inc., *Reprint Series* No. 6 (1958); Irving K. Fox, "National Water Resources Policy Issues," *Law and Contemporary Problems*, Vol. XXII, No. 3 (Summer, 1957).

fection prevails. United States standards, high as they are compared with accomplishments in many other parts of the world, can still be improved.

Health. Turning first to health standards the student is confronted with the difficulty of finding a suitable denominator to express the level prevailing in different countries. Infant mortality rates, or the average life expectancy, are perhaps as good a criterion as can be found for ascertaining differences in conditions. The infant mortality rate of the United States was 26.3 in 1957—a low rate compared with rates of 100 and more in underdeveloped countries, but nevertheless slightly higher than the rates in the United Kingdom, Denmark, Switzerland, Norway, Australia, and New Zealand, and substantially higher than the rates of 17.2 and 17.4 recorded for the Netherlands and Sweden. These rates, it will be remembered, indicate the deaths of infants under one year of age per 1,000 live births. They are a good index of health and hygiene, access to medical facilities, and general social conditions.

We are also fortunate in having a high life expectancy (see Fig. 3). A male, white baby, born in the United States in the mid-fifties, can expect to reach the age of 67.3, six more years than a male, nonwhite baby. Only

THREE MEASURES OF HEALTH PROGRESS IN THE UNITED STATES

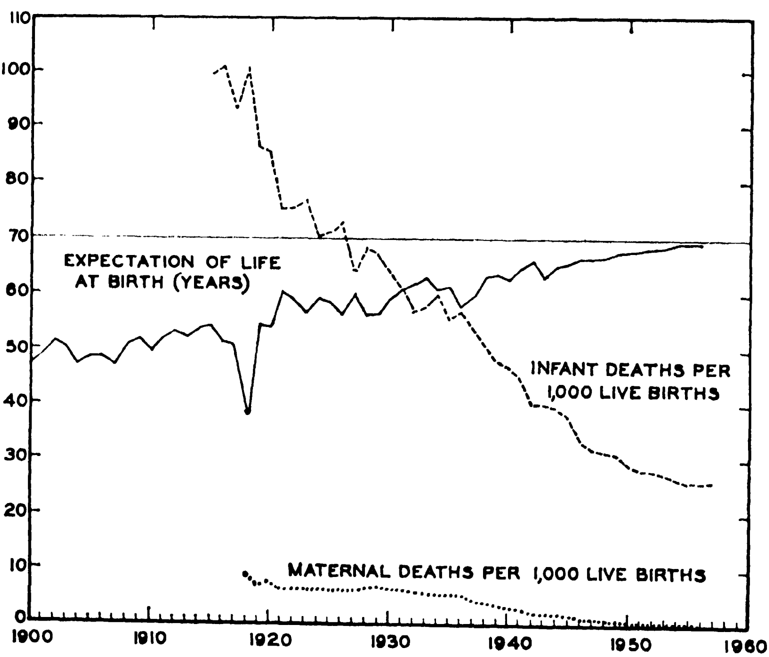

FIG. 3. Note the decline in infant and maternal mortality, and the rising expectation of life. Source: National Office of Vital Statistics. From Frank G. Dickinson, "The Plateau in Life Expectancy," *Current Economic Comment*, May, 1960, p. 22.

a baby born in England or New Zealand would have a slightly better chance, but if it were to be born in Denmark, Sweden, or Norway, his chance would improve by 2½ to 4 years. In South America, on the other hand, the average life expectancy is rarely more than 40 years; in India, rarely more than 30.

Education. In the field of education, the situation is by no means unfavorable, but here special problems are posed by the huge increase of the population of school age and the need to maintain and improve the quality of our education. Close to 50 per cent of the adult population of the world cannot read. In the United States, the illiteracy rate is less than 3 per 100 people, 14 years and over, although this proportion varies by regions and is higher in the South. In the United States, as many as 99 per cent of all youngsters in their early teens attend school; in Brazil only one third of the population of school age does so. In the United States the median number of years of school completed among adults aged 25 or older is close to 11 years.

In the field of secondary education, the United States, with slightly over 50 students per 1,000 of population, still holds first place, but this honor it now shares with England, where the figures have markedly improved in recent years. The other major countries of western Europe show similar improvements. The rates for France (27), West Germany (24), and Italy (15) are still much below the United States rate, but the gap has become narrower of late. In higher education, the United States towers above the rest of the world. Its rate of 20 students per 1,000 of population is four times that of the Soviet Union and from seven to ten times those of the three principal countries of western Europe.

These figures, as well as the health data, reflect the high incomes of the people in the United States. Advanced standards of health and education raise productivity and earning capacity and thus make for high incomes. These, in turn, facilitate liberal expenditures for health and education. While the general level is high in these respects, there are, of course, conconsiderable differences, regionally and otherwise, in standards of health and education. Often poor people are the victims of a vicious cycle. Their income is low, because their productivity is depressed on account of defective health and education; to improve these, higher incomes are required. As higher incomes are not forthcoming, health and educational standards remain what they are. For this reason, it is generally considered the duty of the government to make available to all citizens, regardless of income, certain minimum facilities for the improvement of their education and for protection from health hazards.

Educational facilities are unevenly distributed throughout the nation, and the funds which are available in the various states and regions of states per capita of the students vary widely. As of 1956 the average annual expenditure per pupil in public elementary and secondary schools ranged

from over $400 in New York to $157 in Mississippi. The rapid increase in the population of school age has aggravated the problem of providing adequate educational facilities to our children. Total elementary and high school enrollment has risen from 30 million in the early 1950's to over 40 million in the early 1960's. Classrooms are overcrowded and there is a shortage estimated at over 130,000. Owing to low teachers' salaries and unattractive working conditions, there is a shortage of over 100,000 elementary-school teachers. College enrollments, close to 4 million in the early 1960's, may reach 7 million ten years later.

Total expenditures on formal education in the United States have for thirty years been a fairly constant 3.5 per cent of the gross national product. To take care of the rise in enrollment, the percentage will have to rise to an estimated 5 per cent by 1967.[3] Most state and local governments have financial resources that are inadequate to cope with a problem of this magnitude. Moreover, the movement of the population to the suburbs has made the problem still more complex, since many of the new residential areas have educational facilities that are geared to a much smaller school population. Furthermore, the increase in interest rates has greatly added to the cost of borrowing, and in many communities there is widespread resistance to the issue of school bonds.

In this situation, many thoughtful observers have felt that only a program of federal aid can bring an adequate solution. Indeed, bills calling for general federal aid to education have frequently been introduced in the Congress, but only special programs with limited purposes were allowed to pass.[4] The failure of general legislation authorizing federal aid for the nation's schools is due to the desire to economize as well as to the controversial character of such legislation with respect to desegregation, the coverage of denominational schools, and the alleged dangers arising from federal support of local education.

High Productivity of the American People. As has been pointed out the quality of the American people accounts in part for their high economic productivity (see Fig. 4). Productivity is ability to produce goods and services. It is measured in terms of output per man-day or man-hour, or in terms of man-days or man-hours per unit of output. A coal miner, for example, produces ten tons of coal per day in the United States, but only one ton in Britain. Health and education are, of course, not the only factors which account for American superiority. British mines are deeper than ours. Moreover the advantage of the American worker is, to a large part, due to his superior equipment. In many lines of productive activity, Ameri-

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[3] *The Pursuit of Excellence: Education and the Future of America*, Rockefeller Brothers Fund, Special Studies Project Report V (New York: Doubleday & Co., 1958), p. 34.

[4] For a discussion of the National Defense Education Act of 1958, see Daniel P. Moynihan, "A Second Look at the School Panic," *Reporter*, June 11, 1959, pp. 14 ff.

can superior productivity is the result of the size of the market. The United States, a vast free-trade area, makes it possible for firms to develop along highly specialized lines, more so than would be feasible if the firms had to cater to a small market. By the same token the scale of production can be large enough to absorb the advantages which often go with size. The most impressive indication of the American people's high economic productivity is the per capita income, which is higher than anywhere else in the world.

During the late forties, a large number of European observers—so-called productivity teams—were invited to come to the United States and study

INDEXES OF REAL PRODUCT PER MAN-HOUR (1947–49 = 100)

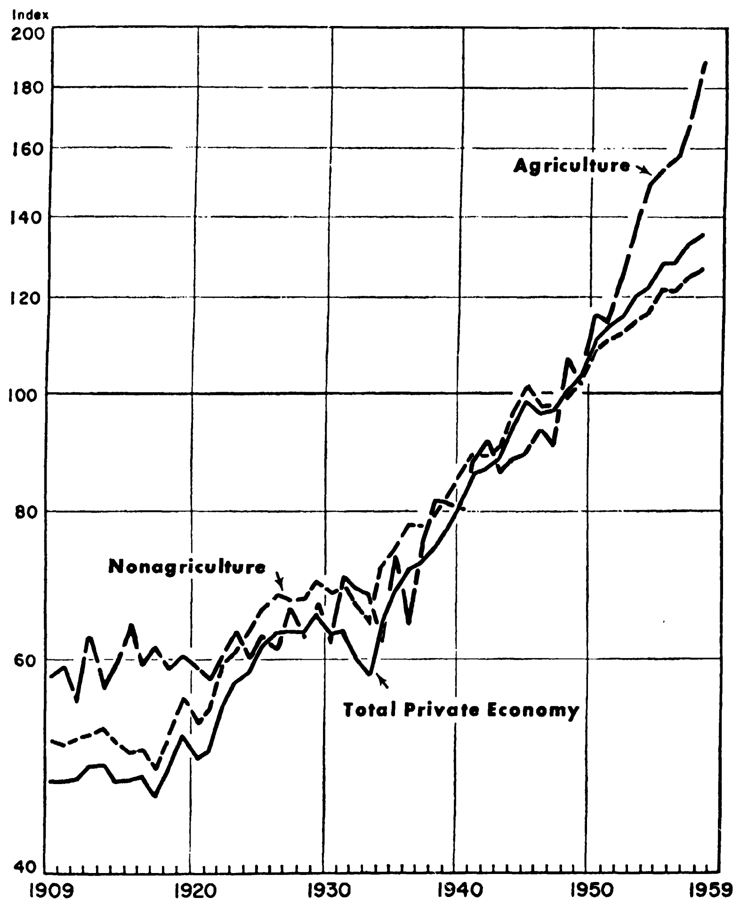

FIG. 4. Technological progress, rising equipment with capital, and improvements in the quality of the labor force account for the upward trend of the productivity of labor, as measured by output per man-hour. For the period depicted in the chart, the average annual percentage increase in productivity was 2.3 for the total private economy, 2.1 for agriculture, and 2.0 for non-agriculture. From U.S. Department of Labor, *Bulletin* No. 1249, 1959, p. 19.

American methods of production with the view of finding out the secret of American productivity. It is interesting to note that these observers, while not neglecting the other factors listed above, emphasized "the effective use of human labor" as "the most distinctive characteristic of American industry." "Rather than machines," the British coal-mining team observed, "we should like to see injected into British industry the sense of adventurous urgency which characterizes the American attitude . . . and is found in management and men alike." Other observers reported cases where identical capital equipment was used in the United States and abroad, "but typically the foreign plant was found to employ two or three times as many employees as the American plant in attaining the same output."[5]

DISTRIBUTION OF THE POPULATION

People can be classified from various points of view, and while not all of them are economically relevant, some of them are so. We will now consider the classification, or distribution, of the population by certain personal characteristics, by residence, and by occupational status.

Distribution by Personal Characteristics. Some personal characteristics, such as health and education, are of great economic significance; they have been considered in the preceding section. Characteristics like health and education are of special importance also, because they can be changed by public policies. This does not apply to other characteristics which, like color, race, or nativity, are beyond the power of the policy maker to change. All that the latter may do is to influence the number of "carriers" of such characteristics by way of immigration policies.

People who are members of a minority because of their color, race, or nativity are often subject to special exploitation and discrimination; they supply a large proportion of what, for this reason, is called substandard labor. No wonder that organized labor in the United States was the principal group which, during the last quarter of the nineteenth century, exerted pressure in favor of immigration restrictions. Immigrant workers often proved more docile, and less exacting in their wage requirements, than native labor.

The cost of prejudice against minority groups is high. The Negro group suffers from discrimination more than any other racial element in the United States. Apart from the political and moral issues involved, discrimination is economically wasteful. If Negro labor is refused entry into certain employments, this reduces total output by the potential contribution which the minority group could make in the absence of discrimination. It appears likely that here would be an increase in the value of production amounting to $20 to 30 billion, if the Negroes were employed at their highest skill.

[5] Robert W. Smuts, *European Impressions of the American Worker* (New York: King's Crown Press, 1953).

Negro labor is disproportionately concentrated in unskilled, service, and agricultural jobs. Productivity in these employments is often low. Only about 9 per cent of Negro men, as compared with approximately 33 per cent of white men, were in 1950 engaged in professional, semiprofessional, proprietary, managerial, and clerical and sales occupations. Skilled craftsmen represented 19 per cent of employed white men but only 8 per cent of employed colored men. Racial discrimination is by no means practiced only by employers. Many local unions discriminate in admission on racial grounds or segregate their members.

Frequently Negroes are handicapped by inadequate education. The median period of school attendance of nonwhite people aged 25 and over was 6.9 years in 1950, compared with 9.7 years for white persons. In states such as Mississippi, Arizona, and Louisiana, the years of school attendance of the nonwhite persons add up to a period little more than half of that of the white.

About one eighth of the nonwhites reside in states and municipalities which have enacted fair employment laws or ordinances, following the wartime federal antidiscrimination policy and the enactment of the New York State law against discrimination on March 12, 1945. The effectiveness of this legislation varies, but there is little doubt that it has opened up many new opportunities formerly closed to the Negroes.[6]

Another personal characteristic that is of considerable economic importance is the age distribution of the population. As both birth and death rates have declined over a long period of our past, it is not surprising that the median age of the population has been on the rise until the early 1950's, when it reached a maximum of 30.2 years. Since then the effects of the upsurge of the birth rate have made themselves felt in the form of a slowly declining median age. There has been substantial increase also in the proportion of the aged people, and this is likely to continue in the years ahead. The percentage of persons aged 65 years and over has doubled from 1900 to 1950, reaching 8.2 per cent at mid-century. Old age insurance is thus becoming important for a growing segment of the population, and the provisions designed to finance it, be it by means of individual thrift or public policy, assume increasing importance for the economy.

A rather stable proportion of the total population is formed by the large group of people aged 45 to 65. Members of this group, and even people of lower age, often find it difficult to obtain employment as employers frequently have an entirely unreasonable preference for young workers. The State of New York, a pioneer in such matters, has passed legislation in 1958 adding age to the kinds of discrimination outlawed in the state: race, color, religion, and natural origin. The law, which applies only to workers

[6] The Supreme Court has upheld the legislation as a valid exercise of the police power. *Railway Mail Association* v. *Corsi*, 326 U.S. 88 (1945).

between the ages of 45 and 65, is enforced by the State Commission Against Discrimination, and it has been of some help in preventing the arbitrary exclusion of these people from jobs.

Regional and country-wide differences in average age are considerable and not without influence on the level of productivity. People may be subdivided into dependent and productive, depending upon their age. A population with a high proportion in the dependent age groups, the very young or the very old, will, if other factors are equal, be inferior in per capita income to a population in which the productive ages are more heavily represented. In California, for example, the large proportion of newcomers accounts for a relatively small number of young dependents, while the proportion of people in the most productive ages from 25 to 50 is over 10 per cent higher than in the United States as a whole. This is one of the factors that explain why per capita income in the far West is higher than anywhere else in the country. Again, a different situation comes about when birth and death rates are very high. When there are very many children and when many die young, the economically productive population is relatively small and the dependent population relatively large. In Brazil, for example, the population of 18 years and over was only about 50 per cent of the total in 1940, compared with close to 70 per cent in the United States. In Brazil the median age was 18 years; in the United States, 29 years.

The distribution of the population by the sexes is still another factor of economic significance. Ever since the 1940's the employment of women has made much headway, and they now constitute almost one third of the labor force. This proportion is expected to continue to increase in the years ahead. By 1965, half of all women will hold jobs outside their homes. Already now three out of every ten married women are working, and two of every five mothers with children of school age are in the labor force. The whole movement has occurred in response to expanding employment opportunities, and it has not been checked by the rising income of the male breadwinners. Women may earn an estimated $50 billion per year. Their earnings are used for the subsidization of the children's prolonged education and for the purchase of the very same household equipment which has liberated them from many chores of the past and made possible their employment away from the home. With the conventional servant class virtually extinct, husbands sometimes are facetiously referred as the "new servant class." Only the future can tell whether the social and psychological consequences of all this will be altogether wholesome.

Rural-Urban Distribution. Over 60 per cent of the United States population live in incorporated places of more than 2,500 inhabitants. While the "rural" population thus includes close to 40 per cent of the total, only a relatively small part of it qualifies as "farm population," that is, people living on farms. Not all rural people are farmers, but many who are not cater in one way or other to the needs of the farm population.

During the past 150 years the ratio of the farm to the nonfarm population has been all but reversed. This is an indication of economic progress: while a hundred years ago 60 per cent and more of the American people had to live and work on farms to produce the basic necessities of life for all the people, now only 12 per cent are required for this purpose. As a result of this, opportunities for the production of goods and services over and above the agricultural necessities are incomparably greater than they were in the past. But, as everybody knows, the development has been accompanied by the growth of the specific insecurity which attends an industrialized and urbanized society, and it is thus another example of the clash of progress and security. The rural exodus has been accomplished by the push of adverse, and the pull of favorable, opportunities which causes people to move to other occupations and places of residence or restrains them from moving into those which are less attractive. The agricultural population has relatively declined and the industrial increased, because nonagricultural employments have been more remunerative.

Occupational Distribution. The relative decline of the farm population is a world-wide phenomenon. Its corollary is the growth of industrialization and urbanization. The economic incentives which are responsible for this development are reflected almost anywhere in productivity differentials. If we distinguish primary production (agriculture, raw materials), secondary production (manufacturing), and tertiary production (service industries), we find that per capita income, with few exceptions, tends to be lowest in those countries in which primary production predominates. It tends to be considerably higher in countries where there is a large proportion of secondary and tertiary production. Much of the differential productivity is due to the quantity and quality of capital equipment. Where this is plentiful and up to date, a relatively small agricultural population may suffice for the production of large quantities of farm commodities. The per capita income of agriculturally employed persons will then be high, as it is, for example, in Argentina and New Zealand, where a large volume of farm production is correlated with a relatively small agricultural population.

The development in the United States serves as an illustration of the progressive movement toward the tertiary stage. Ever since the early 1950's the number of people employed in the service industries—government, trade, finance, utilities, transportation—has been larger than the number of people employed in the production industries—manufacturing, agriculture, construction, and mining (see Fig. 5). This trend is likely to continue in the future, with the service industries showing a faster growth of employment than the production industries. Its principal cause is the rapidly improving productivity of the production industries. These have more pronounced opportunities for such improvement by means of using additional capital. In many service industries opportunities of this kind are

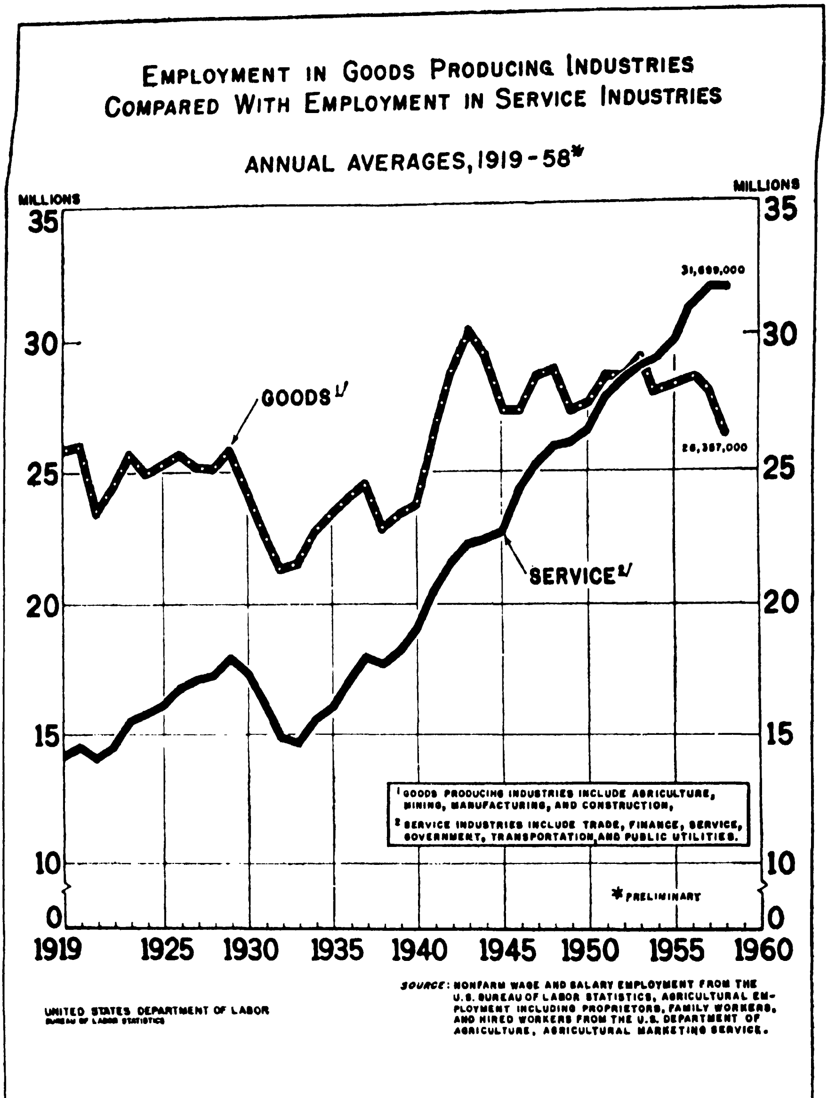

FIG. 5. More people now are employed in the production of services than of goods. From *January 1959 Economic Report of the President* (Hearings before the Joint Economic Committee, 86th Cong., 1st sess., 1959), p. 129.

severely limited. Hence, the growth of the output of the production industries requires relatively fewer additional workers than does the growth of the output of the service industries.

In conclusion, it may be appropriate to survey briefly the occupational composition of the United States labor force. Of the total labor force four-

teen years old and over, the largest proportion, 34 per cent, are craftsmen, foremen, and operatives. Twenty-two per cent are laborers in households, factories, and farms; 19 per cent are clerks and kindred workers.

Sixteen per cent are proprietors, managers, and officials, and 9 per cent are professional people. Among the proprietors, managers, and officials, the farm group (owners, managers, and tenants) stands out. It alone accounts for 8 per cent. This illustrates the great significance which is still attached to the individual small enterprise in farming. In other fields of economic activity the unit of business tends to be larger and the number of independent operators is thus smaller In the group of proprietors, managers, and officials, there are, apart from the farmers, a substantial number of wholesale and retail dealers. It is especially in retail trade that the independent small businessman continues to be prominent.

If compared with earlier years, the whole development shows a significant decline of the low-paid and unskilled employments and a movement towards the better-paid jobs requiring higher skills, a movement that in no small measure explains why the middle class is so strong in the United States. Even in manufacturing, where the total number of employees presently is on the decline, this decline is exclusively one of the wage earners, that is, of those below the rank of foreman, whereas the salaried employees—executives, technicians, salesmen, office workers—increase steadily in numbers.

Looking at the development from again another angle, we may divide the labor force into farmers, blue-collar workers, and white-collar workers. From 1900 to 1950, farm workers (owners, operators, and laborers) declined from 37 per cent to 12 per cent. Blue-collar workers (manual and service workers) increased slightly, from 45 to 52 per cent. The proportion of white-collar workers (professional people, managers, clerical and sales workers) doubled during the period, rising from 18 to 36 per cent. This shift again testifies to the great increase in productivity, with each farmer and factory workers turning out a multiple of the output produced fifty years ago.

SUMMARY

Differentials in population growth throughout the world are bound to affect the relative position of Europe and North America. The increase in population is especially rapid in the underdeveloped countries, where birth rates are very high and where every economic advance spells a decline of the death rates.

Until recently, the United States belonged to the group of countries characterized by a declining rate of population growth. Since the 1940's, however, the rate of growth has increased vigorously, a phenomenon that is largely due to an upsurge of the birth rate. Economic adjustment to

changing technologies is facilitated by vigorous population growth, and the demand for capital is stimulated. The dire predictions of Malthus have not come true in advanced societies.

The quality of the population is an important determinant of economic productivity, and so is the distribution of the population by personal characteristics and occupations. The high economic productivity of the American people has been stimulated by high standards of health care and education.

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STUDY QUESTIONS

1. What are the three functions of man as a producer?
2. What are the most important tools of measurement applied to the quantitative aspects of population?
3. What is the difference between a decline in population and a decline in the rate of population growth?
4. Trace the behavior of birth and death rates during the past hundred years.
5. What factors account for the increase in the birth rate of the United States since the early 1940's?

6. In what way do birth and death rates indicate the stage of economic development at which a country finds itself?
7. If present trends continue, which regions of the world will show the largest gain in population around the year 2000?
8. How would you define overpopulation and underpopulation?
9. Is population density per square mile a relevant indicator of economic well-being?
10. What is meant by an optimum population?
11. What were Malthus' views about population?
12. Have Malthus' predictions come true in regions where the most is made of technological progress?
13. Are conservation policies more badly needed for agricultural or for mineral resources?
14. In what way does population growth facilitate adjustment to technological change?
15. What is the position of the United States relative to such qualities of the population as health and education?
16. What factors account for the high economic productivity of the American people?
17. What is the economic relevance of the age distribution of the population?
18. As regards the residence of the population, what has been the most important trend in recent decades?
19. As regards the distribution of the population among production workers and service workers, what has been the most recent development?
20. What evidence is there for the statement that the United States labor force has gradually been upgraded?

Chapter 3 TECHNOLOGICAL PROGRESS, CAPITAL FORMATION, AND THE BUSINESS CYCLE

THE NATURE OF TECHNOLOGICAL PROGRESS

The Role of Capital. The productive process in which man and nature join becomes more efficient mainly through improvements in the use of capital. It is in improvements of this type that technological progress chiefly manifests itself. Primitive man overcame the first great hurdle that blocked the path toward material progress when he learned to supplement the limited power of his brawn through the use of tools. Since then new "tools" have been forged in unpredictable plenty.

A country's technological progress can be measured in terms of the value of the instruments of production which it supplies to its workers. In the United States the value of these—including land, buildings, equipment, and inventories—is now well over $15,000 per production worker in manufacturing, that is, exclusive of supervisory employees and their clerical staffs. There are wide variations in the value of capital invested per worker, ranging from the garment industry, where the figure is about one fourth of the average for all manufacturing, to the petroleum industry, where it is seven times as much.

In no country throughout the world is labor's effort supported by as much capital as in the United States. As has been seen, this explains in part why per capita incomes in the United States are higher than anywhere else. Although there are violent fluctuations throughout the years, there is a rising trend of business purchases of equipment and of nonresidential construction, the two major components of the business stock of fixed capital (see Fig. 6). Over half of the value of the equipment consists of machinery. The remainder is distributed among transportation equipment—mainly business motor vehicles—and miscellaneous types of other equipment.

THE INVESTMENT OF CAPITAL

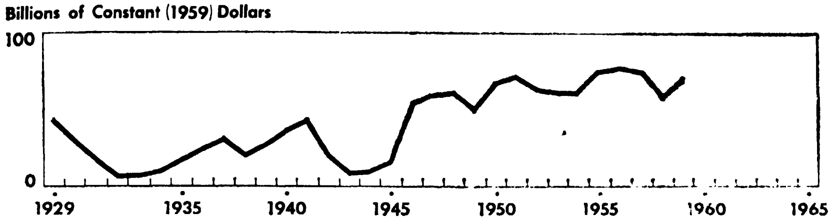

FIG. 6. While the annual investment of capital is high relative to what it was before the mid-forties, it seems to have reached a plateau in the 1950's. From *Survey of Current Business*, July, 1960, p. 5.

On the whole the forces of competition and the desire to reduce cost and increase sales have been powerful factors making for the stimulation of technological change. In the half century subsequent to 1880, there were developed eighteen new branches of manufacturing which, at the end of the period, employed one seventh of all the labor in manufacturing. The electric and automobile industries loomed largest among these new establishments. Of late, technological progress has ushered in a number of new industries and has facilitated the expansion of others.

There are many new products whose output has grown at an average annual rate of 40 per cent and more between 1929—or from the first year for which production data are available—and 1957. They include drugs such as vitamins and antibiotics, plastics, synthetic rubber, power steering and power brakes, television sets and transistors, and synthetic detergents. Aviation has come into its own, and the air-transport industry has shown an average annual growth rate of 30 to 40 per cent from 1929 to 1957, as have such other industries as synthetic fibers, air conditioners, and tape recorders. Growth rates from 15 to 20 per cent have been achieved for automatic transmissions, food disposals, frozen foods, food mixers, paper milk containers, and trailers.

A less dramatic but steady growth, well above the average, is characteristic of the production of the chemical industry, of electrical energy, and of natural gas (see Fig. 7).

The expansion of production along conventional lines and the rise of new products requires large amounts of capital. In addition, the demand for capital is stimulated by the huge requirements for the equipment of a labor force swollen because of the rise of the birth rate since the 1940's.

Atomic Energy and the Demand for Capital. The preceding paragraphs have made it clear that the demand for capital is likely to be brisk at the present time and in the years ahead, even in the absence of a momentous discovery or invention. But while technological progress must not be taken for granted—it is, on the whole, a factor characteristic only of the last few centuries—there are no indications that it is slowing down. There

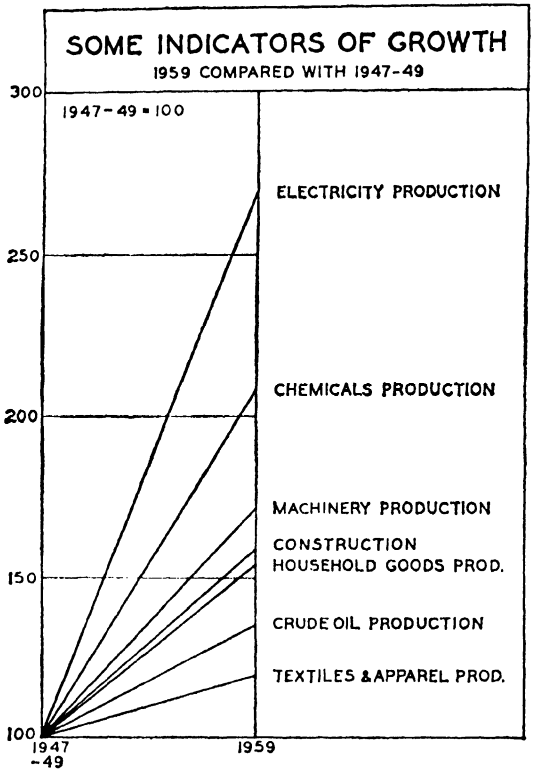

FIG. 7. Production in 1959 is shown as a percentage of production in 1947–49. Electricity production was more than 2½ times as large in 1959 as in 1947–49, and output of chemicals has more than doubled. From *The Cleveland Trust Company Business Bulletin*, January 16, 1960. By permission.

is sound reason for the belief that new inventions will come forth, requiring capital for their utilization. The most impressive of the new advances is the wartime-induced promotion of the use of atomic energy. The government-financed outlay for atomic energy during the War was equal to about one half of the total net capital formation in an average year during the preceding two decades. Altogether about $25 billion of public funds have been spent on atomic development since 1942. The current annual costs of the program are over $2 billion.

In this connection, a few words are in order concerning the potential economic significance of atomic energy. The strategic importance of atomic energy is so overwhelming that it easily diverts the public interest from the economic aspects of the matter. Among these the possibility of using atomic energy as an ordinary source of power stands out. Such a development would go far in liberating the users of power from dependence on proximity to sources of hydroelectricity. These, it is held, cannot eco-

nomically be exploited beyond a radius of some 300 miles because of power line losses over longer distances. Coal, the other source of power, can be used anywhere regardless of the location of the mine; but its transportation involves cost. As one pound of atomic fuel yields as much energy as 3 million pounds of coal, power would become more readily available everywhere. Such a devleopment would affect the location of industries and firms, moving them closer to markets or sources of materials other than power. It would also open up new vistas for the economic growth of countries and regions that are inadequately equipped with the traditional sources of power.[1] Moreover, oil and coal, two important sources of conventional power, are exhaustible resources. Estimates of available reserves have frequently been revised upward, however, and these reserves are large and will suffice for many years to come. Uranium, the material required for the production of atomic energy, is likewise an exhaustible resource, but in this case the reserves are still more plentiful in terms of years of possible use, and they can be supplemented by the utilization of shale, a soft rock that is available in huge quantities.

There is no question that we find ourselves at the threshold of an era that will see many innovations brought about by the utilization of atomic energy. The production of electricity from atomic sources is only one of these innovations, and as time goes by, it may prove not to be the most important one. Other uses lie in the fields of medicine, chemistry, and metallurgy. In the distance, there beckons the unveiling of the secrets of photosynthesis, with the possibility of synthetic food production.

An atomic power plant designed to turn out electrical energy differs from a conventional power plant in that it has no coal furnaces which would fire the boilers. Instead, there is a nuclear reactor to produce heat for the boilers, and instead of the coal, fissionable material—uranium—serves as fuel. The principal differences in cost relate to the use of the nuclear reactor in place of conventional coal furnaces and to the use of uranium in place of coal. It seems that these differences, in part, offset one another. The nuclear reactor is more expensive to construct than a coal furnace. Uranium 235, on the other hand, is reported to cost about $9,000 a pound; and since it provides the energy equivalent of 3 million pounds of coal, it apparently costs only as much as coal at $6 a ton.

There are a number of different ways to construct atomic power plants, although they all follow the pattern described in the preceding paragraph. As yet, no optimum design has evolved. Differences relate, in the main, to the type of fissionable material to be used and to the moderators and cooling

[1] Industrial location is also affected by considerations of strategy which apparently call for decentralization and dispersal of plants and industries. Estimates have been prepared indicating that the complete relocation of all urban dwellings, plants, and nonmovable equipment in the United States could be accomplished in fifteen years at a cost of about one fourth of the national income.

systems. Whatever the detail of the system, it seems, however, that there are considerable economies of scale which place a premium on large installations.

Early estimates of the cost of atomic power production were relatively favorable. One of such estimates, made public in 1953, indicated that a large reactor, producing 250,000 kilowatts of electrical energy, could be expected to incur generating costs of about 8 mills per kilowatt-hour—that is, no more than is competitive in many parts of the country. A smaller reactor, producing 10,000 kilowatts, would incur relatively much higher generating costs of, perhaps, as much as 50 mills per kilowatt-hour.

Since that time, however, the cost estimates have been revised upward, and in many countries the programs for the installation of atomic power plants have been scaled down. In Europe, the blocking of the Suez Canal late in 1956 and the resulting interruption of the supply of oil from the Middle East caused a temporary upsurge of interest in atomic power production. England, which had a program of atomic power production under way since 1955, tripled the size of this program in 1957. In the same year, France, Italy, West Germany, and the Benelux countries formed Euratom, an organization that was designed to develop similar programs with American aid. However, the blocking of the Suez Canal was lifted in 1957, and the discoveries of oil in Africa and in various European countries as well as increased coal supplies and the expanding use of natural gas seemed to deprive the atomic power programs of much of their urgency. Hence the scaling down of the programs. In 1959, the world capacity for the production of electrical energy from atomic plants was about 200,000 kilowatt, the equivalent of a conventional installation serving a community of 300,000 people.

Britain, which has been the pioneer in the development of peaceful uses of atomic energy, may have a capacity approaching 3 million kilowatt by 1965. The unit cost of the output of the new installations exceeds that of power from conventional sources by a substantial margin. In the face of large supplies of oil and coal and increasing economies in the construction of conventional power plants, this margin has gone up and may be as high as 60 per cent.[2]

In the United States, interest in the development of atomic energy for peacetime uses was sustained by the electrical industry, which hoped to find a world-wide export market for nuclear reactors. These hopes were disappointed by the turn which events took in Europe: not only was the number of newly installed reactors a small one, but in a number of countries domestic industry proved equal to the job of constructing and installing these facilities. Moreover, a vigorous program of atomic energy

[2] "Can Nuclear Power Compete?" *Economist*, May 9, 1959, pp. 543–45; "Nuclear Power in the Sixties," *ibid.*, February 13, 1960, pp. 639–41.

production in the United States was retarded by prolonged controversies about the respective roles of government and private industry. When the atomic program was initiated during World War II, it was strictly a government program serving military purposes. When the peacetime use of the atom came to the fore, ways were sought to allow for the increasing participation of private industry in its development. The result was a "partnership" approach, with the government paying for research and related expenses and providing subsidies, electrical companies constructing the facilities, and utilities operating them. This approach was criticized by those who questioned the wisdom of turning over to private interests the fruits of a public investment of some $20 billion and who desired to reserve to the nation, in the form of public power developments, the utilization of atomic energy for the production of electricity. With experience lacking, and with the possibility of incurring costs that would exceed those of conventional power, private industry, it was argued, would be loath to tackle the job of constructing large reactors requiring huge investments.

Moreover, some thoughtful observers were concerned about the disruptive effects which the large-scale production of electric power from atomic sources might have upon existing public utility concerns, especially upon those operating under conditions of high costs. Indeed, if atomic developments should usher in a substantial reduction of the price of electric power, such effects may fall upon a much wider range of industries, benefiting those whose power requirements are more pronounced and bringing competitive disadvantage to others. Aluminum versus steel is a case in point. Here, as in other connections, economic progress may require adjustments which, while painful in the short run, in the end will turn out to be harbingers of improvement. However, our electric power requirements grow at such a rapid pace that for many years nuclear power will provide only a small supplement, rather than a replacement, of the output of conventional installations.

The number of new civilian atomic power stations in the United States continues to be a small one. One began construction in 1954, six in 1955, two each in 1956, 1957, and 1958, and one in 1959. The best-known completed installation is one in Shippingport, Pennsylvania, near Pittsburgh, which has a capacity of 60,000 kilowatt and started operations in December, 1957. It was principally financed by the government, built by Westinghouse Electric Corporation, and is operated by Duquesne Light Company. Depending upon whether the cost of research and development is included or excluded, the cost per kilowatt-hour is ten times or more that of conventional power. The principal purpose of the installation is to serve as a pilot plant that will facilitate experimentation and the gathering of experience. According to current estimates, atomic power can compete with conventional power if its cost per kilowatt-hour is no more than $250. This amount is exceeded by margins varying from 50 per cent to 100 and more

per cent in the cases of the small installations presently under construction or nearing completion.

In many parts of the underdeveloped world the cost of conventionally produced electrical energy is substantially higher than in the United States. Some countries suffer from inadequate coal resources; in others the production of hydroelectric power is made difficult by the seasonal character of the rainfall. Hence, in these countries the availability of power from atomic sources is a problem of great urgency, and anxious attention is given to any sign of progress coming from the more highly developed countries. In India, where ambitious plans are under way for the production of electricity from atomic sources, the chairman of the Atomic Energy Commission of that country has pointed out that there is not enough coal or oil remaining in the ground in all the world to raise the living standards of 400 million people to one comparable with that of the United States, and that principal reliance must be placed on atomic energy.

What of the hydrogen bomb? Can its power be harnessed for peaceful uses? Estimates have been made to the effect that the fusion of one kilogram of deuterium (hydrogen of atomic weight 2) would yield an energy of 100 million kilowatt-hours. But while research into the peaceful uses of this superpower is actively pursued in this country and in Europe, it has as yet not produced practical results comparable with the possibilities for the utilization of atomic power. One of the difficult problems that challenges the imagination of scientists is the construction of containers that can withstand temperatures going into many million degrees Centigrade, and this problem has as yet not been solved.

The Role of Research. Technological progress, as reflected by the rise of atomic energy and other innovations, is facilitated by what is called the invention of invention. This means that technological advances are no longer a matter of accident and chances but are institutionalized in the sense that society has made arrangements for their orderly promotion. Scientific progress occurs, in the main, as the result of two types of work. There is, first, the theoretical scientist who, in the quiet of his study, formulates general laws. His only equipment is paper and pencil. His work is supplemented by the experimentalists who generally require much more elaborate equipment in the form of laboratories, expensive machinery and instruments, raw materials, and personnel. Research work of this second type has become extremely costly, so much so that an individual small enterprise no longer can adequately finance it in its own plant and must rely on specialized research firms which will work on a contract basis. There is an increasing number of such firms, and they have greatly expanded the scope of their operations in recent years.

The nation's expenditures for research and development have increased many times during the past few decades, from one half billion dollars before the outbreak of World War II to more than $13 billion in the early 1960's

(see Fig. 8). Wars, hot and cold, often provide the occasion for extending the limits of science and technology. For example, much of the development toward mechanization of American agriculture started during the Civil War, when manpower was scarce and the demand for agricultural products

FUNDS FOR RESEARCH AND DEVELOPMENT IN THE UNITED STATES, 1953–59

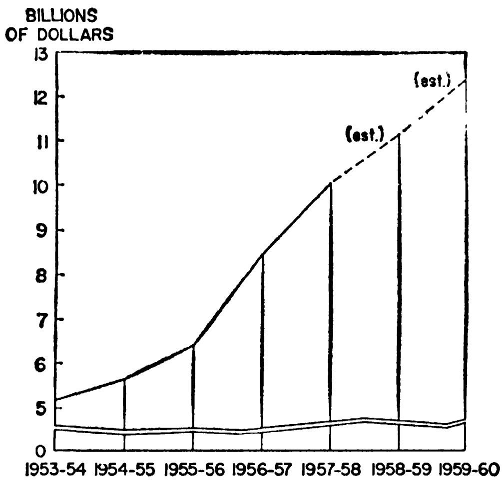

FIG. 8. Note the increase in expenditures for research and development. From National Science Foundation, *Reviews of Research and Data on Development*, December, 1959.

vigorous. In wartime the potential role of the government as supporter of technological progress becomes more conspicuous. Expenditures made in connection with the first atomic bombs were in the neighborhood of $2 billion. It is out of the question that private financial resources could have been devoted to a purpose which, in its beginning, seemed so uncertain of accomplishment. Again, in 1957, when Soviet Russia dispatched a satellite into the earth's orbit, this proved a potent factor in the stimulation of expenditures for research and development on the other side of the Iron Curtain.

Funds made available by the federal government for research and development thus have continuously risen at a rapid pace. Standing at close to $3 billion the fiscal year of 1953–54, they more than doubled in 1957–58, and reached $7.5 billion in 1959–60. Funds made available by private industry were about equal to those of the government in the early 1950's. Since that time they have risen, though at a slower rate than governmental ones, and now constitute only about one half of the amount made available by the government. In addition, a few $100 million are provided by colleges and universities and other nonprofit institutions.

While the government supplies most of the money for research and

development, it carries on only a small amount of research work in its own establishments. The bulk of the federal funds go to industry, and industry performs most of the actual work—the equivalent of over $10 billion. Smaller amounts are transferred to educational and other nonprofit institutions.

Research expenditures are especially heavy in the industries turning out electrical machinery, aircraft, instruments, drugs, and chemicals. Financial rewards constitute a powerful stimulation of these expenditures. An impressive relationship has been shown to exist between the percentage of gross receipts spent on research in an industry and the industry's return in per cent of net worth.[3] Moreover, the more an industry spends on research for each dollar of its sales, the larger tends to be the percentage which new products constitute among its sales.[4]

Large enterprises are the principal beneficiaries of industrial research. A study covering about 85 per cent of the industrial research and development work in the United States revealed that in 1952, of nearly 2,000 companies, the seven largest employed 20 per cent of all research personnel. The House Committee on Small Business, in an investigation completed a few years ago, found that of the research funds made available by the Department of Defense from 1954 to 1956, over 98 per cent had gone to the 500 largest contractors. While the Chairman of the Committee characterized this distribution as "a subsidy to big business," officials of the Defense Department pointed out that few small concerns have adequate facilities for research and development. Research is expensive. The DuPont Company spent $27 million to develop nylon twenty years ago, and for the development of a new plastic known as Delrin the same company disbursed $42 million.

Related complaints have been made about the situation which develops when an invention is made in the course of research work performed by a business concern and financed by the government. If a patent is issued to the firm, the Department of Defense will receive a royalty-free license to use the invention. But for nongovernmental purposes the position of the firm is like that of any other patentee in that it can collect royalties from those whom it permits to utilize the patented process. These arrangements have been exposed to serious criticism. It has been pointed out that the financial benefits which are derived from research that is financed by the taxpayers fail to accrue to the latter but are transferred to the patentee, who has not put up the funds instrumental for the making of the invention. The granting of patents to business firms for inventions made on government contracts is also said to prevent the exchange of scientific information among the research personnel employed by different concerns. If there is

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[3] Yale Brozen, "The Economic Future of Research and Development," *Industrial Laboratories*, Vol. IV, No. 12 (December, 1953).

[4] *Chemical Week*, May 30, 1959.

a chance to obtain a patent, an employer will want to enforce strict secrecy among his research staff—otherwise a rival enterprise might acquire knowledge of a new process and attempt to have it patented. In this manner, walls are erected between teams of American scientists, and scientific progress is retarded.[5]

Patents and Technological Progress. Ideally, businessmen are all the time on the alert, looking for innovations, because they expect from them either one of two things, or both: a reduction of the production cost of a given product or the chance of creating a new product, entirely new or in part so, which will increase their sales. The reduction in cost may entail economies in the use of labor or in that of capital. Labor-saving devices appear more attractive when wages are high; thus in countries characterized by generous rewards for the services of labor, the use of capital has gone farthest.

If businessmen act in this way, they will promote technological progress. But, on occasion, business interests have tried to impede technological advances, because they wanted to prolong the usefulness of outmoded capital equipment. They may also be eager to prevent the introduction of processes and commodities which would unfavorably affect sales in their established lines. One company, for example, was successful in developing a pigment which could alternatively be used as paint or as textile dye. Since the same company produced a number of other, higher-priced textile dyestuffs, much thought was given to the possibility of admixing to the new pigment agents that would be injurious to textiles.

Efforts along similar lines are said to have retared the development of fluorescent lighting and of light bulbs and tubes of great longevity—although the producers insist that there are aspects to light bulb quality other than longevity. Business policies of this type are, as a rule, made possible by monopoly power, especially by patent rights. These vest in a concern the exclusive right to the use of certain processes. If other concerns had the same right, there would be no point in obstructing, on the part of any one firm, the introduction of new processes.

Patents are granted to the inventor and vest monopoly power in him or his assignee. The strength of this power varies greatly, being dependent on the ease with which the patented process can be replaced by substitutes. Not infrequently the existence of a patent will stimulate the development of rival processes which are bound to weaken the position of the original patent holder. The monopoly power of the patentee differs from monopoly power in general in two respects. The one refers to its origin; the other, to its termination. The patent monopoly is not established over something that existed before but is granted in return for the creation of something new.

[5] Monopoly Subcommittee of the Senate Small Business Committee, *Patent Practices*, (Hearings, December 8, 9, 10, 1959).

Moreover, it is not valid forever but expires after the passage of a certain period of time.

The patent legislation indicates the intention of the legislator to stimulate the inventive spirit by the promise of monopoly power. It reflects an American tradition of long standing. To date the United States has granted almost three million patents. The patent system has, however, been attended by certain abuses which have given rise to demands for its reform.

1. At law, patents are valid only for a period of 17 years. This provision generally, but not always, limits the exercise of monopoly power over time. Not always: in some lines of business—for example, in the production of aluminum—patents which expired many decades ago were instrumental in enabling the monopolist to build an industrial empire of such strength that in later years, after the extinction of the patent, no competitor for years was capable of gaining a foothold in the industry.

Moreover, there are opportunities by means of legal manipulations to draw out to an undue length the period during which protection is granted. By means of delays in procedure, joint filing of applications for different patents which then are handled separately, and other machinations, this period can be prolonged to as much as 44 years. Although this maximum may be reached only in a very few cases, the actual period of protection is often in excess of the statutory 17 years. Such extension is possible because the applicant is protected during the period which precedes the grant of the patent. Another problem is posed by the delay which interfering court proceedings may cause. For example, in the case of the Jorgensen automatic choke patent the application was filed in 1932 and the patent issued in 1955, after passage of some 23 years. Various proposals have been made with the intention to remedy the situation. One of these, which was approved by the Senate in 1940, calls for the determination of a definite period of time, say 20 years, calculated from the date of filing of the patent application, beyond which the monopoly cannot continue.

2. Probably one out of every two patents issued is never used. Sometimes patents are taken out, not in order to use a new device, but to prevent it from being used. The suppression of patents may be a means to protect capital sunk into equipment made obsolete by the new process. It is, of course, true that many patents have no value. The fact that they are not used does not indicate that they are suppressed. Some patents are taken out because of their potential nuisance value. Others may have to be tested and developed. There are thus legitimate reasons for not using a patent. The General Electric Co. was issued 10,757 patents from 1939 to 1955, American Telephone and Telegraph Co. followed with 8,539, and Radio Corporation of America held third rank with 7,894 patents. Many of these patents are not in use. In some cases the development was considered incomplete; in others the practical application depended on other develop-

ments; in still others the determination of the commercial application was not complete, or public necessity was held to be absent. In the majority of the cases of unused patents, however, a superior alternative was available. The law, as it stands, makes the patentee the sole judge of the usefulness of the patent.

3. The monopoly which the law grants to the patentee relates to a single invention which is presumed to compete with others in a free market. However, patents have been abused and served as a basis of control over an entire industry, at times even over the markets of other products.[6] So-called "basic" or "umbrella" patents may be taken out, with a claim broad enough to cover an industry and stifle its development. A case in point is the famous Selden patent on the idea of the automobile, which was applied for in 1879 and granted in 1895. It took Henry Ford until 1911 to destroy this claim. Furthermore, there are "bottleneck" patents which, while not basic, relate to certain details indispensable for an industry. Another control device is the accumulation of patents, by acquisition from others, with the view of closing the entry into, and obtaining control over an industry. An illustration of this is provided by the policy of a parking meter manufacturing company to purchase all parking meter patents, a policy which the courts outlawed in 1944.

At law the patentee is at liberty to grant, or refuse to grant, others the right to use the patented procedure. Such grant is called a license. In conjunction with licenses, various abuses have been noted. Sometimes patentees have made the grant of a license dependent on tie-in sales of unrelated articles. While the courts have frowned upon such practices, docility of the license holders is often secured by granting licenses only for very short periods of time.

Most questionable, however, are attempts to dominate whole industries by means of patents through so-called patent pools and cross-licensing agreements. In themselves, these devices need not be harmful to a free economy. All depends upon the uses to which they are put. The patent pool developed when technologies came to be more complex. Patents often cover only small details of the manufacture of complicated devices and machines. When such patents are held by different concerns, there is often an impasse which can be broken only by pooling arrangements. Once the pool has been formed, the exclusive position of the group is often strengthened by insistence on the observation of monopolistic practices (regulation of output, prices, and markets; refusal of licenses to outsiders) on the part of all members. The size of modern patent pools and the power wielded by them is

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[6] This and the following after Fritz Machlup, *An Economic Review of the Patent System*, Washington, D.C., U.S. Government Printing Office, 1958, p. 11 (Study No. 15 of the Subcommittee on Patents, Trademarks and Copyrights of the Senate Committee on the Judiciary, 85th Cong., 2nd sess.).

enormous. There are, for example, over 15,000 patents in the pool formed by General Electric, American Telephone and Telegraph, and Radio Corporation of America.

Cross-licensing agreements, under which groups of companies grant each other licenses or promise such grants, become questionable when they are coupled with monopolistic arrangements, such as the proviso that the partners may not sell in each others' territories. In the international field, agreements of this type have the effect of vesting in private organizations the power of producing results normally obtained only by means of a tariff.

Some abuses of the patent system have been checked by the courts. This has generally been the case if the abuse occurred in conjunction with a violation of the antitrust laws. These are discussed in greater detail in Chapter 15, below. In the present context, it suffices to mention that a patentee cannot enforce his patent if he has misused it in violation of these laws. Patents that are not enforceable are of little value to the patentee, because he cannot exercise his principal right: to sue another person for unauthorized use of the patented process. Nevertheless, a patentee who has illegally employed his right, with the result that it has become unenforceable, can still threaten others with litigation even though he would lose his case. As the threat of litigation may impede the use of the patented process by others, the Department of Justice urges that in cases of this type the defendant be compelled to grant licenses free of royalty.

In other cases the Department of Justice, by means of antitrust proceedings, has broken the hold of the patentee over potential competitors and insisted that licenses be made available to others against reasonable royalties. For example, competition in the field of glass bottle and container manufacture was much restricted, because virtually all patents on the required machinery were owned by one holding company. New firms could obtain licenses not at all, or under great difficulties, because the patentee was eager to protect the established licensees. Here, antitrust proceedings have restored the freedom of entry into the industry. A similar situation existed in the electrical-equipment industry, where the leading concern, in conjunction with others, had monopolized the patents and technology relating to incandescent lamps and lamp parts, with resulting frustration of small firms desiring to stay, or gain a foothold, in the industry. In this case the defendants were ordered by the court to dedicate to the public their patents on incandescent lamps and lamp parts.

The courts have thus, on a limited scale, effectively restrained the power of the patentee to refuse licenses. A number of reform proposals aim at generalization of this practice. They would grant to anybody the right to obtain a license from the patentee, in return for equitable royalties. There is, indeed, much to be said in favor of these proposals. As the patent is a creature of the government, there is no reason why the government should not impose limitations on it for the common good. It is unlikely that such

limitations would discourage the inventive spirit, provided the patentee may secure adequate royalties from the licensee. The examples discussed in the preceding paragraphs are apt to point out that unrestrained monopoly power of the patentee may often hamper industrial progress.

ADJUSTMENT TO TECHNOLOGICAL CHANGE

The Displacement of Workers. Technological progress sometimes calls for painful short-run adjustments. If technological progress causes the rise of a new industry, not all of the jobs provided by it are net additions. The growth of the automobile industry rang the death knell of the horse-and-buggy business. Just as the capital which had been sunk into this business depreciated so did the skill of the workers attached to it. In this situation, some of the workers learned new skills; others may have gone into the automobile industry; but still others were too old, or too much set in their ways, to find new jobs. Technological progress thus may cause technological unemployment. Workers have often violently opposed the introduction of new machinery or new processes of production. A famous example of this was the struggle of the Luddites in England, who in the years 1811 and 1812 ran riot and, in fiery vehemence, destroyed the newly introduced knitting frames, power looms, and shearing machines.

Technological unemployment is by no means an entirely academic matter, even in our days of brisk expansion of business. Consider the increase in productivity in manufacturing, for example. Total factory employment, 14 million in 1949, had increased by about 15 per cent ten years later. But during the same period, manufacturing production rose by 60 per cent. These over-all figures cover up a great variety of conditions in different industries. In a number of them, there was an increase both in output and employment. In others, however, output rose and employment remained stationary or declined.

Take the coal miners, for example. There were 483,000 of them in 1950, but only 249,000 in 1957. In spite of this drastic decline in manpower, the production of coal fell by less than 10 per cent. Or take the textile industry. Slightly less than one million workers employed in this industry in 1959 produced 15 per cent more than 1.4 million had turned out in 1948. Or take the automobile industry. From 1947 to 1957 the number of autos and trucks produced increased by 51 per cent, whereas the number of production workers decreased by 3 per cent.

In every one of these cases technological progress played an important role in bringing about the described changes. In coal mining, mechanization went ahead at fast strides. In the textile industry, the increased use of synthetic fibers facilitated automatic handling and sped up the pace of looms and spindles. In the automobile industry, "automation" was introduced in the early 1950's and since then has become the standard throughout the in-

dustry. Automation puts machines, rather than men, in control of other machines—just as the thermostat in our living room controls the heater in the basement. Automation has spread fastest in industries using flow techniques such as the conveyor belt. In the automobile industry, the work piece is now handled by banks of interconnected machine tools, which after completion of the job automatically transfer the piece to another machine that is ready for the next job. Employees simply watch "as the product is automatically machined, moved on to be machined again, and finally inspected."[7]

Automation has spread also in office work, with electronic computers, calculating machines, and other devices doing jobs that formerly were done by personnel. Not so long ago it was feared that these machines would doom a large part of the white-collar class. However, the increase of paper work in banks, insurance companies, government agencies, and business firms in general has been of such a dimension that the number of office personnel not only has not declined but is rising rapidly, absolutely as well as relative to other employees.

Not all business concerns are so widely diversified that a worker who is no longer required in one part of the organization can find a job in another one. Moreover, he may have to acquire a new skill to make himself useful in the expanding service employment or elsewhere. Much will depend upon his mobility and upon the general economic atmosphere of the time. If there is relatively full employment, his absorption in a new trade will be relatively easy. If, however, the innovation happens to occur at the time of a trade depression, even the acquisition of a new skill may be of little avail. When the business situation is more favorable, public policies designed to relieve the plight of the displaced workers need not go beyond the provision of temporary financial aid, of retraining facilities, and of help in locating a new job.

The problems of technological unemployment can also be illustrated with the help of the concept of elasticity of demand. If a technological change yields economies of labor, cost of production falls. If there is competition the good will be sold more cheaply. If the demand for it is elastic, workers will not be displaced but will remain employed to produce the larger output. If it is inelastic the displaced workers may find employment in other consumer-goods industries, provided the demand for their products expands side by side with the reduction of consumer outlay for the goods which are now available at a lower price. If the demand for the products of other consumer-goods industries does not expand, the workers may be absorbed by capital-goods industries, provided they become more active.

If the market of the goods affected by technological progress is monopolistic, there may possibly be a tendency to maintain the price of the

[7] "What Automation Costs," *Economist*, May 5, 1956, p. 478.

goods. Employment of the displaced workers then depends largely upon expansion in the capital-goods industries. Reduced cost and inflexible price spell larger profits. Additions to profits are available primarily for new investment rather than for increased consumption. If the new investment does not take place at the required rate, that is, if the additional profits are saved rather than used for expansion, technological unemployment becomes imminent.

A complementary solution is the stimulation of demand for consumer goods, not by price reductions, but by increased wages. This solution works not only in the form of higher hourly rates of pay but also by means of a reduced number of working hours. Democratic society has come to be organized in a way which facilitates this adjustment, brought about by the strength of labor unions and the growth of collective bargaining. The productivity of labor increases normally at an annual rate of approximately 3 per cent. This means, for example, that a given number of workers can produce this year 100 units of a good, and next year 103. The problem of disposing of the additional 3 per cent of output can be solved by a corresponding increase in wages, provided the monetary system permits adequate expansion. The method of distributing the fruits of increased productivity by way of wage increases does not mean that wages are raised in exactly those firms or industries in which productivity has gone up. The idea is to match an average increase of productivity in the whole economy by an average increase in the wage level throughout the economic system.

Unless technological progress leads to unemployment, all three described methods of distributing its fruits are applied in practice. Some benefits accrue to consumers through price reductions; others manifest themselves in the form of new investment; and still others are conferred on labor by means of increased wages or reduced hours, thereby stimulating consumption.

INVESTMENT AND THE DEMAND FOR CAPITAL

In the preceding chapter, we have discussed population growth, one of the factors stimulating the demand for capital. In the present chapter, another factor, technological progress, has been considered. We will now concentrate attention on the methods and mechanism which make capital to be sunk into new investment available to those who want it. In the present section, we will examine the general relationships between investment and the over-all level of economic activity and will also analyze the changing volume of investment under different conditions.

New capital is a part of current income; the transformation of current income into capital (instruments of production) is called "investment." "Investment," in this sense, is a technical term which should be distin-

guished from the "investments" of everyday life, which include purely financial transfers of funds, such as the purchase of securities.

Real investment always requires an effort on the part of producers and sometimes also a sacrifice by the consumers. The effort consists of the production of capital goods: plants, machinery, instruments, roads, railroads, drainage facilities, irrigation works, and the like. A sacrifice is involved if the productive effort takes place at a time when the country's resources are employed to their capacity: then the productive effort requires the diversion of resources from consumer-goods production to the production of capital goods. Because of the diversion the volume of goods available for consumption shrinks, and consumers must do without things that they could have obtained in the absence of the diversion. They thus undergo a sacrifice. Expressed in other terms, it can be said that investment requires only a productive effort if the production of capital goods is made possible by expansion into unutilized capacity; it requires such an effort as well as a sacrifice if there is no unutilized capacity and if the production of capital goods is stepped up at the cost of reduced consumer-goods production.

A country's net production of consumer goods and capital, or producer goods, adds up to its national income. The word "net" refers to two things. (1) In the process of summation, all raw materials and intermediate goods that enter into the production of other goods are eliminated in order to avoid double counting. (2) All durable producer goods that are merely replacements for worn-out productive apparatus are not counted as part of the current income.

That part of the national income which consists of consumer goods is called consumption, while the part composed of capital goods in excess of those needed for replacement is called investment. In a sense, a nation's ability to make investments is determined by the size of its income: where the national income is small, all of it or its bulk is required for consumption, and little will be available for investments.

This is true in free societies. In Soviet Russia, where production takes place in accordance with government plans, investment has been forced up to a high rate with ensuing low standards of consumption, which only of late seem to have been allowed a slight increase. Nevertheless, it seems that, in the more advanced industrial countries, a larger proportion of the national income was invested during the nineteenth century, when incomes were low, than is the case now. In a sense, our own prosperity is founded on the agonies of the past. Our forefathers were more frugal, labor was more docile, and standards of social policy were lower than they are now: there were then no limitations on working hours, no minimum wages, and no social security. Another factor that depressed consumption was the great concentration of income. If a large proportion of a small total income accrued to relatively few people, the consumption of the bulk of the popu-

lation was effectively restrained. It was thus possible during the nineteenth century to lay the foundations of the great industrial empires. It was then that the greatest single investment was made that ever was accomplished in so short a span of time: the construction of an elaborate railroad net.

Investment and Saving. New investments must be financed. If prospective investors see profitable opportunities in new plants, equipment, and the like, they will want to obtain funds for the purchase or hire of resources going into the new plant and equipment. These funds can come from three sources: from the savings of private individuals which directly or through financial intermediaries are used for the purchase of stocks and bonds; from credit institutions, such as commercial banks; or from reserves accumulated by the business firm in the past.

We must pause to consider the concepts of saving and investment, because they are often used in different meanings. The two most important concepts of saving are: (1) The income received for the just-completed income period (week, month, etc.) will be partly used for consumption, while the not-consumed part is "saved." Saving, in this sense, is therefore the difference between the consumption of one period and the income of the preceding period. (2) Saving, in another sense, is the difference between consumption and income of the same period.

If we use saving in the first sense, it is clear that saving can be different from investment. An excess of investment over saving can be financed through the creation of additional bank money or through the activation of hitherto idle cash balances (dishoarding). An excess of saving over investment would involve the cancellation of bank money through debt repayment or the inactivation of hitherto circulating cash balances (hoarding). Whenever investment exceeds saving, in this sense, aggregate income of the current period rises; whenever investment falls short of saving, in this sense, aggregate income of the period falls.

If we use saving in the second sense, it must be equal to investment, because both are defined as the difference between consumption and income. The equality of saving and investment in the second sense can never be disturbed, because it follows logically from the definitions. But even for saving in the first sense, there exists a tendency to become equal to investment after the lapse of a certain length of time. This tendency arises from the fact that people save more when their income is higher, and less when their income is lower. If an excess of investment over saving, in this sense, raises people's income, their saving will be stepped up; and since the income will keep on rising as long as the saving falls short of the investment, the rate of saving will go on rising until it catches up with the rate of investment. Conversely, if investment falls short of saving, in this sense, incomes must fall; and people will reduce their saving. Incomes will continue to fall until people have reduced their rate of savings to the level of the rate of investment.

The student may wish to know that both concepts of saving have been developed by British economists, the first one by Professor Dennis H. Robertson, the other by the late Lord Keynes. The Keynesian concept is the one used for national-income accounting, as developed in Chapter 5, and is often referred to as "*ex post*" saving. This term distinguishes it from other concepts of saving such as "intended" or "*ex ante*" saving, which does not lend itself to statistical operation.

Under initial conditions of unemployment, higher income makes for larger employment. Under conditions of full employment, businessmen can achieve the aim of increased investment only by forcing consumption down, bidding away from prospective consumers those resources which they want to divert to the production of capital goods. This would require higher prices, too high to enable consumers to consume at the old rate. Real saving, in the sense of foregoing potential consumption, would thus be enforced upon consumers.

Strategic Role of Investment. The preceding discussion elucidates the great importance which is attached to investment. The rate of investment can be said to determine the national income and the rate of saving, because the rate of consumption is usually the more passive element. If investment is slackening, income and employment fall. If investment activity is vigorous, income and employment rise. If it is too vigorous, prices rise: once productive resources are fully employed, new investment cannot significantly raise total current output; and investors obtain the services of productive agents by bidding up their prices, withdrawing them from other potential users.

A study of the significance of investment over time indicates that the nineteenth century was a period of unusual investment opportunities, resulting from technological progress and population growth. Of these opportunities the most was made in western Europe and North America. In these parts of the world, capital was accumulated at a rapid rate. Much of the emphasis characteristic of classical economists becomes more readily understandable if viewed against this background. They lived at a time when, in the midst of relative poverty, investment activity grew to become extremely vigorous—vigorous enough to push income and employment up to the ceiling set by a country's physical capacity. Impressed by the active demand for investments, the classical economists were eager to emphasize the virtues of thrift, i.e., voluntary restraint in consumption. Without such restraint, capital formation would either not have taken place or would have required a forced increase in the rate of saving by means of increased prices. To do this, an expansion of currency and credit would have been required, which at that time was not so easily accomplished as it is today. During most of the nineteenth century, currency and credit were tied up closely with the volume of metallic reserves at hand in a given country.

The situation which today prevails in the backward countries is not

essentially unlike the one in which western Europe and North America found themselves during the nineteenth century. In these countries the national income and the volume of capital which have been accumulated are still low; mass unemployment rarely, if ever, occurs; and investment opportunities are plentiful and remunerative. In the advanced countries the persistent depression of the thirties manifested itself in drastically reduced investment, which, in turn, spelled low levels of income and employment. At that time, there was much talk of vanishing investment opportunities. It became widely recognized that investment opportunities do not come forth in the form of an even flow but by leaps and bounds, with intervening periods of slack. For example, the construction of a railroad net, or the electrification of a region, once it has been completed, will for a long time satisfy the respective needs; if no similar enterprise of corresponding magnitude is at hand, it may be difficult to employ the resources whose services were absorbed in such efforts.

It was at the time of the Great Depression that the strategic role of investment became more or less accepted among economists, with savings assuming the character of a reflex. The economist who for the first time formulated a theory of the determination of income and employment in which investment figures in the indicated manner was Lord Keynes. Keynesian doctrine was instrumental in assigning a new function to public policy: that of "creating offsets to savings," or supplementing the volume of private by public investment. Private investment, so the supporters of these policies argued, would not have been large enough to offset the volume of intended savings. Therefore, government had to supplement it lest income and employment be further depressed to a level where savings would be equated to the low rate of private investment. The opponents of such a program, in the main, accepted the fundamental analysis in the sense that they recognized deficiency of private investment as the principal manifestation of the depression. But to them the reluctance on the part of private investors appeared largely as the result of public policies hostile to business; and such reluctance, they believed, would only be aggravated by large-scale public investment, which in the end would ring the death knell of the American system of private enterprise.

Investment and Thrift. It was, indeed, not until the United States was fully engaged in World War II that unemployment disappeared completely from the American scene and the output of goods and services came anywhere near capacity. This was entirely the result, directly or remotely, of massive public spending for war on an unprecedented scale. It was then that intended consumption and investment, public and private, came to exceed the output of goods and services under conditions of full employment, the number of employable persons having been reduced by the draft into the armed forces. Only on a gradually rising level of prices was it possible to hold down the amounts of goods demanded to the level of the scarce

supplies. Even in the face of various controls, prices would have risen to still higher levels if people had used their large wartime incomes without more than ordinary restraint. To prevent them from bidding up the prices of goods and services, the government sponsored various campaigns designed to encourage greater thrift.

Within a decade the American public thus had to unlearn first, and then to relearn, the doctrine which interprets private thrift as public virtue. It had to unlearn it during the Great Depression and to relearn it when there was full employment. It is one of the greatest difficulties encountered by modern economic policy that it is bound to reduce thrift, so deeply ingrained in the American character as absolute virtue, to a matter of relative expediency. Modern economics makes saving appear, at times, desirable both from the point of view of society and of the individual. At other times it is held harmful to the common good, but exactly then it may be still more desirable from the standpoint of the individual who is threatened by unemployment and insecurity.

INVESTMENT AND BUSINESS CYCLES

The Business Cycle. Investments, we have seen, are subject to violent fluctuations, and a glance at Figure 6 (see p. 45) will confirm this observation. The instability of modern economic life, commonly referred to as the business cycle, is a phenomenon whose interpretation has been attempted with the help of many theories. A detailed review is beyond the scope of the present book. Many of these theories, however, have in common a special emphasis on the profound significance of fluctuations in investment as an explanatory principle of the business cycle. The late Joseph A. Schumpeter (1883–1950), a leading economist of his time, developed a four-phase cyclical theory, distinguishing between prosperity, recession, depression, and recovery, in which investments are considered as the strategic element. Entrepreneurs, so Schumpeter held, are eager to utilize technological progress in the form of innovations, that is, changes in production functions. They found new firms, which are financed by bank credit, purchase new equipment and construct plants, and for the time being enjoy the business leadership which is attached to a pioneering effort.

These innovations tend to appear in the form of bunches or clusters, not because there are cycles of entrepreneurial ability or of technological progress, but because they are made during relatively prosperous periods—when the risk of failure seems to be slight, and one successful innovation creates a psychological atmosphere that invites the making of others. The wave of innovations is accompanied by secondary effects which are induced by the fundamental process. The newly created purchasing power, made available to the innovators through bank credit and disbursed for

new plant and equipment, is distributed through the economy. Firms other than the innovating ones, and the consumers, have more money to spend. The demand for goods increases, giving rise to an expansion of production and to speculation, undertaken in the expectation of rising prices. A boom develops, which comes to a halt when credit ceases to expand and the early innovators begin to repay their loans. As the risk of failure increases with the exhaustion of sound business opportunities, a break occurs in the second wave. Liquidations and adjustments may lead to the collapse of the depression phase. Once the depression has run its course, recovery may set in—perhaps automatically, perhaps promoted by such opportunities as are found even during depressions, perhaps brought about by external factors. A new wave of innovations then turns the recovery into a fullfledged prosperity.

The preceding paragraphs have given us a glimpse only of one business cycle theory. We shall come across others as the discussion proceeds. Schumpeter distinguishes between three different cycles: a short one of 40 months, an intermediate cycle of 9 to 10 years, and a long wave encompassing about 55 years (see Fig. 9). In this interpretation which is quite controversial, economic activity moves to the beat of a threefold rhythm,

A COMPOSITE CYCLE

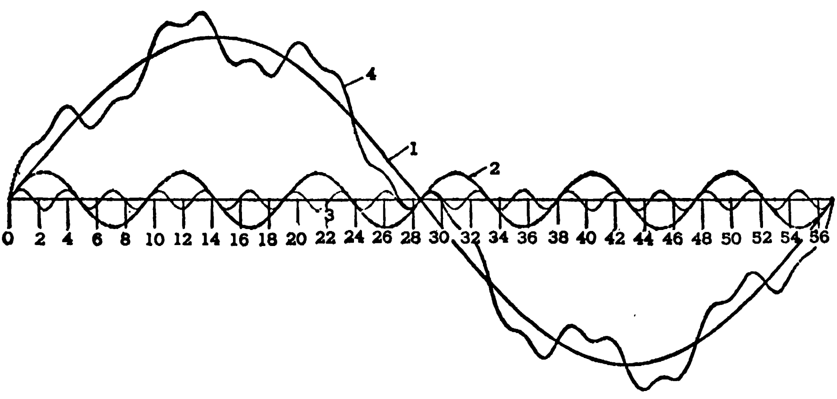

FIG. 9. This is an example of a composite cyclical movement (curve 4), reflecting long waves (curve 1), intermediate cycles (curve 2), and short cycles (curve 3). The composite cyclical movement still does not contain the trend. Reproduced from J. A. Schumpeter, *Business Cycles* (New York: McGraw-Hill Book Co., Inc., 1939).

accounting for a complex periodicity of economic affairs which is a composite of the three cycles. Of the long waves, three are described in greater detail. The first, from 1787 to 1842, covers the industrial revolution—the growth of the cotton-textile industry, the iron industry, and steam power. The second long wave, from 1843 to 1897, coincides with the world-wide

construction of a network of railroads. The third, beginning in 1898, mirrors the growth of the electrical and automobile industries. If we spin out the story further, we may see ourselves engulfed by a fourth wave, now in its initial stage, one coinciding perhaps with the utilization of atomic energy.

Three Recent Recessions. The movement of the short cycle may be illustrated by the three recessions of 1949, 1954, and 1958. Although much less severe than the upheaval of the late 1920's, these recessions are of typical significance because the events took place in accordance with a common pattern. First, there occurred a decline in new construction and new orders for durable goods, indicating the crucial role of investment. Business failures rose, while the prices of basic commodities and of industrial stocks declined. Apprehension among the business community made itself felt in the form of a falling number of new incorporations. The slack in the demand for labor was registered by a decline of overtime hours of work and of the average number of hours worked per week.

These events then ushered in the recession. Unemployment increased, while there was a fall of total output, industrial production, nonagricultural employment, freight carloadings, and corporate profits.

Declining orders, sales, and outlays for new plant and equipment cannot fail to speed up the rate of inventory accumulation. Business stocks constitute over 20 per cent of the total output of goods and services. Stocks

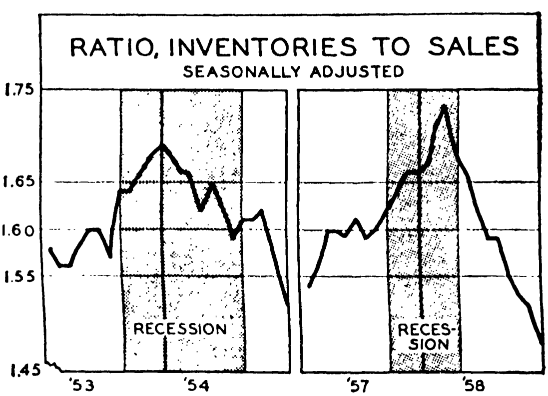

FIG. 10. During recessions, inventories tend to rise faster than sales. From *The Cleveland Trust Company Business Bulletin*, March 16, 1959. By permission.

on hand are about 150 per cent of monthly sales (see Fig. 10). Changes in the rate at which stocks are accumulated show a special sensitiveness to business change in general. Usually, inventories turn down a few months after the peak of business activity has been reached, and their decline is more prolonged than that of total output.

The behavior of the variables discussed here can be measured by so-called indicators, measures of business change which are paid increasing importance in business and government. As the variables discussed in the first paragraph tend to behave in such a way as to foretell the coming of a recession—at least they do so in retrospect—they are known as "leading" indicators. Those considered in the second paragraph are "coincident" indicators: their decline coincides with the recession. The third type of indicators, "lagging" ones, refers to the movement of variables which follows behind that of total output or other coincident indicators. Inventories are an important example of such lagging indicators (see Fig. 11).

Regularization of Business Investment? Cyclical instability seems to be the price of progress in a free society. But must this really be so? Would it not be possible to develop countercyclical business policies of investment, increasing the rate of investment when a depression threatens and keeping it in check during prosperity? At the present stage of our knowledge and organizational ability, possibilities of this sort seem to be severely limited. Business managers, like other human beings, lack perfect knowledge. In the interpretation of the nature of a given business situation, hindsight is incomparably superior to foresight. No ringing of bells signals the end of a phase of the business cycle. We are likely to speak of a recession when the other fellow is out of a job, reserving the word *depression* for a situation when we find ourselves unemployed. A business policy of regularizing investment, pursued by individual firms, not only requires an accurate interpretation of the current economic situation but also a prediction of the future course of events.

Moreover, even with adequate knowledge and the best intentions, an individual business manager's anticyclical policy may be frustrated by lack of capital and by the failure of other business concerns to pursue a similar policy. In a highly developed economy such as ours, many of the products of industry are complementary; that is, their utilization calls for the synchronized output of other goods. If the steel industry were to expand countercyclically, its chance to sell the additional output would be poor in the absence of expansion among the automobile and other steel-using industries. Much, then, would depend upon the co-ordination of a business policy of regularized investment. It might seem that co-ordination would not be too difficult to accomplish, with some 1,600 companies with assets of \$5 million or more doing approximately 60 per cent of all investment. But whatever method of co-ordination would be selected, it would create dangers of its own, since it would either encourage monopolistic policies on the part of business or concentrate an excessive amount of power in government, which might come to prescribe investment policies for all. The whole matter, however, continues to be actively discussed, and as time goes on, methods and procedures may be developed for a successful regularization of investment.

STATISTICAL INDICATORS

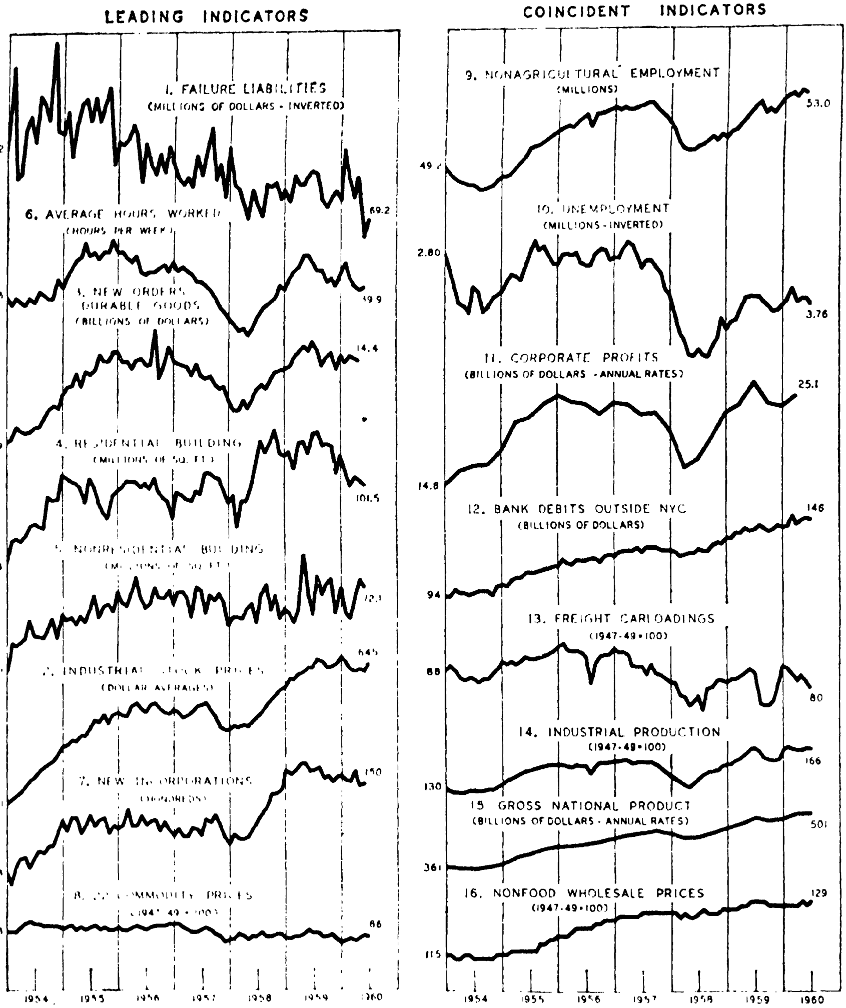

FIG. 11. Note the behavior of the statistical indicators during the recessions of 1954 and 1958. From Statistical Indicator Associates, Great Barrington, Mass. By permission.

SUMMARY

The productive process becomes more efficient mainly through improvements in the use of capital. They are brought about by technological progress. Technological advances are promoted by businessmen, although on occasion interest in the maintenance of existing conditions is strong enough to retard new developments. Change and growth require adjust-

ments that are often painful to specific groups. Thus labor may suffer from technological unemployment if its mobility is low or if alternative job opportunities are poor. Technological progress results in increased productivity, which in turn may be reflected in lower prices or higher wages.

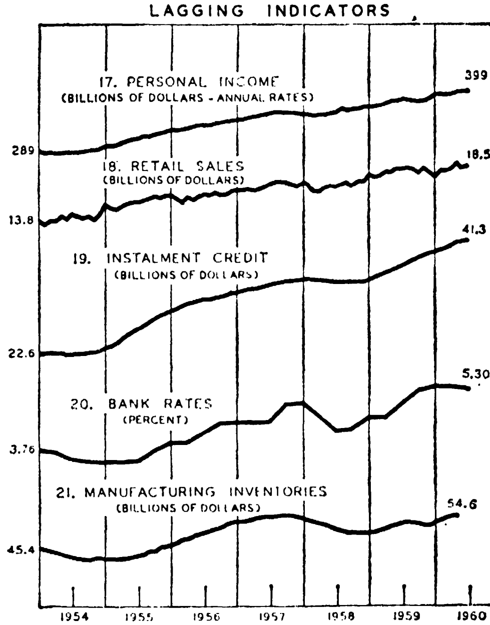

FIG. 11. *Continued.*

Of late, government has lent substantial financial support to scientific research designed to promote technological advances. In the past the government's role was generally limited to the maintenance of the patent system. Patents give rise to monopoly power, and there are abuses of the patent system calling for its reform.

Technological progress is financed with the help of new capital, made available from current income. Its transformation into producer goods is called "investment." If investments are made, society does not use all of its income for consumption. Part of it is saved, that is, invested. For society, savings and investments are the same. If the rate of investment is increased, it will produce an increase in the rate of savings out of income received. Attempts to increase saving out of income received do not necessarily cause an increase in investments.

Though the trend of investment is upward, and prospects are fair, investment is subject to violent fluctuations. The economic instability which attends these fluctuations is known as the business cycle. Fluctuations might be dampened if it were possible to regularize business investment.

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STUDY QUESTIONS

1. Besides the more liberal equipment with capital, what are other factors causing productivity to increase?
2. Approximately how large is the amount of capital per production worker in the United States?
3. What does the bulk of capital equipment consist of?
4. What are the economic inducements to technological change?
5. What are the prospects for the utilization of nuclear energy for peaceful purposes?
6. Trace the changes of the role of the government in sponsoring and financing research.
7. Can patents be used to impede technological progress?
8. What are cross-licensing agreements?
9. What is meant by compulsory licensing of patents?
10. How may automation be responsible for technological unemployment?
11. How would you define "investment"?
12. What is the relationship between investment and saving?
13. What is the difference between *ex post* saving and *ex ante* saving?
14. In what respects does Schumpeter's theory of the business cycle fail to reflect current conditions of economic life?
15. What is the role of investments in Schumpeter's business-cycle theory?
16. What is an innovation?
17. Why does investment fluctuate?
18. What historical periods are covered by the "long waves" of Schumpeter's business-cycle theory?
19. In which lines of activities is investment most rewarding right now?
20. What are the obstacles to a policy of stabilizing business investment?

Chapter 4 THE MECHANISM OF INVESTMENT AND ITS REGULATION

THE SOURCES OF BUSINESS FUNDS

We have learned in the preceding chapter that business investment may be financed from three different sources: the personal savings of individuals, which may be used, either directly or through the services of financial intermediaries, for the purchase of stocks and bonds; the extension of credit through the commercial banking system; and the reserves of business itself. Let us now compare the relative importance of the various sources of funds. In 1959, personal saving—that is, the difference between persons' incomes after taxes and their consumption expenditures—was $23 billion, about the same that it had been during the three preceding years. Not all of this money, of course, was available for the purchase of newly issued stocks and bonds. Indeed, the entire net amount of new corporate issues—that is, net of those issued in place of securities already outstanding—was $8.4 billion in 1959, somewhat less than from 1956 to 1958, and not all of this was purchased by private individuals or indirectly for their account.

Bank loans, the second source of investment finance, reached $4 billion in 1959, much more than in 1957 and 1958 but less than in 1956. Indeed, in 1958 bank loans had a negative value, that is, on balance more was repaid than newly borrowed.

Compare now with these amounts the so-called "internal sources" of business funds for investment. These reached in 1959 the unprecedented sum of $30.5 billion. This was distributed with $20.5 billion among depreciation allowances and with $10 billion among retained profits. Depreciation allowances reflect the cost of durable instruments of production whose useful length of life goes beyond the single accounting period. A concern, for example, may have purchased a truck for $5,000; and if the useful length

of life of the truck is five years, it may record in its books an annual depreciation allowance or charge of $1,000 during each year of the five-year period. This charge is said to be an expense but not an expenditure, meaning that the *$1,000* need not be actually disbursed during the accounting period and that the firm, if it does disburse it, can put it to such purposes as it sees fit. The retained profits are that portion of total corporate profits which is left over after corporate tax liabilities and dividend payments have been met.

THE RETENTION OF INCOME

The retention of corporate income, a practice sometimes known as self-financing or internal financing, thus has come to be the principal instrument

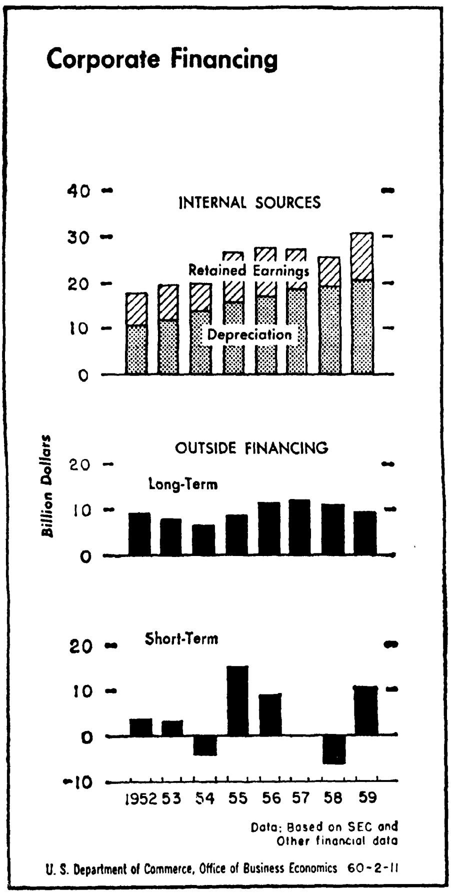
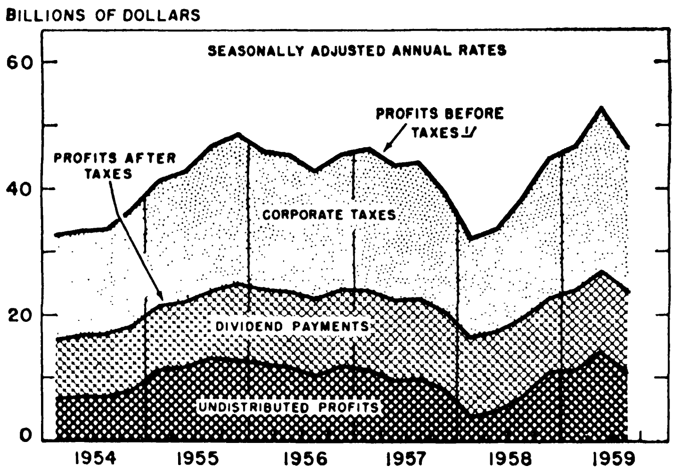


FIG. 12. Corporate financing features large-scale use of internal funds and renewed expansion of short-term debt. From *Survey of Current Business*, February, 1960, p. 26.

for making available to the business firm the funds for its own expansion (see Fig. 12). The behavior of the corporate manager of the real world does no longer conform to Schumpeter's concept of an innovating entrepreneur, whose activities are financed by bank credit (see p. 64). Indeed, some corporations pursue a policy of relying exclusively on internal sources of funds for expansion. Other corporations consider it a matter of pride not to resort to bank credit or to bond financing, although capital obtained in this way usually commands a lesser return than equity financing through new issues of stock—at least, so it has behaved in the past. Du Pont, the great chemical concern, offers the outstanding example of a business that refuses to use bond financing.

Internal financing of new investment is not feasible without the accumulation of reserves in excess of those required for maintenance and replacement and ordinary contingencies (see Fig. 13). During the 1930's the ac-

CORPORATE PROFITS, TAXES, AND DIVIDENDS



1/ NO ALLOWANCE FOR INVENTORY VALUATION ADJUSTMENT.
SOURCE: DEPARTMENT OF COMMERCE.

FIG. 13. Undistributed corporate profits, available for internal financing, are about equal to dividend payments. From *Economic Report of the President*, January, 1960, p. 17.

cumulation of huge reserve funds was criticized adversely, because a more liberal dividend policy presumably would have encouraged consumer spending and perhaps might even have induced the dividend receivers to raise their investments. It was then attempted by means of tax policies and otherwise to induce business firms to distribute a larger portion of corporate profits. Indeed, from 1936 to 1940 the federal government levied a tax on the retained earnings of corporations, graduated in accordance with the relative size of the earnings.

Criticism of this sort has little justification under conditions of high-level economic activity. There are, however, more universally valid causes of dissatisfaction with excessive corporate reserves. First, such reserves facilitate the purchase of smaller businesses by the larger ones and thus make for greater concentration of economic power. Secondly, they tend to distort the allocation of productive resources if corporate managers can use them for investment at their own discretion. Under these conditions, it is not the market test, the collective decision of the forces appearing in the capital market, which allocates available funds to productive uses but the private judgment of corporate officials. These are often relatively independent of effective control by the stockholders, and in a large corporation, all a stockholder can do to register his discontent is to sell his stock. Investors as well as corporate managers may, of course, make mistakes of judgment in the allocation of investment funds. But, as is natural with human beings, corporate managers will often be inclined to use such funds for enlarging the business which they happen to operate, while from the point of view of society—that is, if the market test were the decisive factor—other uses may seem preferable. If corporate profits were more fully distributed in the form of dividends, more funds would become available for these uses (see Fig. 13). Third, the retention of corporate profits may be used as a method of avoiding the personal income tax. What is not distributed as dividend is not liable to an income tax payable by the stockholder. If the value of the stock appreciates as a result of the retention of earnings, and if the stockholder realizes this gain by selling the stock, his income tax liability for long-term capital gains is less than it would be for dividend income.

A fourth objection to the widespread use of internal financing is based on the observation that corporations which rely on such financing thereby demonstrate that the prices which they charge for their products are well above of what they would be in a competitive market, that is, above cost and normal profit. Under such arrangements it is the consumer rather than the capital market whose funds are made to pay, in the form of higher prices, for new investment.

Fifth and last, the practice of internal financing is apt to frustrate the government's monetary and credit policy. For example, if the monetary authorities, in order to restrain a boom, tighten credit or place controls on new issues of corporate securities, those corporations which can finance expansion from internal funds will feel little or no compulsion to fall in line with the aims of public policy.

In summary, internal financing facilitates the concentration of economic power, tends to distort the allocation of productive resources, leads to the avoidance of taxes, places the financial burden of investment on the consumer, and makes possible the frustration of public policy.

In defense of the retention of earnings, it is pointed out that the policy of stable dividend payments, pursued by many corporations and preferred

by large numbers of stockholders, would be impossible if all earnings were distributed as soon as they are made. It is emphasized, further, that the practice of income retention is indispensable for small and growing concerns, which have no ready means of access to the capital market. Moreover, stringent policies of distributing dividends may be called for during periods of rising prices. During such periods the amount available for expansion usually is less, often far less, than the amount retained. When prices rise, even an unchanged volume of business requires more cash. Besides, profits may have been made on inventory whose replacement cost has gone up. Finally, during periods of rising prices the depreciation allowance, which is calculated in terms of the original cost prevailing at the time of purchase of the durable assets, no longer suffices for the acquisition of a similar asset. Indeed, estimates have been made to the effect that aggregate depreciation charges during the early fifties fell short by $7 billion per year of the amount required to purchase replacements.

Last, but not least, the regulation of the securities markets, which will be discussed presently, has been a factor of considerable importance in inducing corporations to rely on internal sources of finance. Obviously, if funds do not pass through the market in the form of issues of stocks or bonds but are generated within the firm itself, they escape the regulations imposed upon the securities markets. It takes time and money to live up to these regulations.

REGULATION OF THE SECURITIES MARKETS

Federal regulation of the securities markets dates from the early 1930's, when investors became dissatisfied with the prevailing state of affairs. (Note that whenever the word "investment" occurs here, it is used in the financial sense, not in its technical meaning of real investment.) From 1929 to 1933 the market value of the securities listed on the New York Stock Exchange declined from $115 billion to $55 billion. The reduction in value of $60 billion does not measure the whole extent of the disaster, because it does not reflect the decline of securities listed on other exchanges or traded over the counter. Nevertheless it is impressive enough, comparing with a national income of $40 billion for 1933. The public became aroused and insisted on the federal supplementation of the unsatisfactory state regulations of securities transactions. For a long time there had existed a number of state laws, especially the so-called "Blue-Sky Laws," which were designed to protect investors. Some of these laws provided for the punishment of fraudulent transactions incidental to the sale of securities; others required licenses for securities dealers; still others called for the registration of securities offered for sale; and some combined most of these features. The state laws had, on the whole, proved disappointing. They were executed only

perfunctorily because of the lack of an adequate administrative organization in most states. Where such an organization existed, the territorial limitation of the jurisdiction and the lack of uniformity among the statutes often made protection illusory.[1]

The intervention of the federal legislator was preceded by a series of congressional hearings and investigations which unearthed numerous abuses on the part of investment bankers and brokerage houses. Starting in 1933, Congress then passed the following statutes: Securities Act of 1933, Securities Exchange Act of 1934, Public Utility Holding Company Act of 1935, Chandler Act of 1938, Investment Company Act of 1940, and Investment Advisers Act of the same year. This series of legislation will now be discussed.

Securities Act of 1933. With one exception the provisions of the Securities Act of 1933 were concerned with newly issued securities. To protect prospective investors from the purchase of fraudulent securities, the issuer must first file a detailed statement with a federal agency, disclosing all pertinent information with regard to the proposed issue. The federal agency, Securities and Exchange Commission, may exempt small issues not in excess of $100,000 from this regulation. This amount was raised to $300,000 in 1945, and efforts have been made to raise it still further. Also exempt are government bonds, short-term commercial paper, and privately placed securities. The Commission is authorized to set up standards for the contents of the so-called "prospectus" which describes the securities offered for sale.

Only one section of this Act applies to new and old security issues: it bars in a general way fraudulent practices committed in conjunction with either.

Securities Exchange Act of 1934. The Securities Exchange Act of 1934, on the other hand, contains elaborate regulations affecting trading in securities after issue. The regulations refer to security exchanges as well as to securities themselves. Security exchanges must be registered with the Securities and Exchange Commission, which has broad powers of control over these organizations. Registration is also required for all securities listed on the exchanges. The information supplied in conjunction with the registration statement is, on the whole, as comprehensive as that given by the issuers of new securities. In order to keep it up to date, it must be supplemented by periodical and other reports. Manipulation of the securities markets by means of obnoxious devices such as wash sales and matched orders is prohibited. These transactions are designed to create artificial

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[1] Lately a uniform securities act, endorsed by the American Bar Association and other organizations, has been adopted by a number of states. Two noted legal authorities, the draftsmen of the act, have reported on this in *Blue Sky Law*, by Louis Loss and Edward M. Cowett (Boston: Little, Brown & Co., 1958).

prices that do not reflect the real market situation: in the case of wash sales, no actual change of ownership is contemplated; while in that of matched orders, an order to sell is "matched" by an order to buy.

The Act further places credit facilities available for securities markets under the control of the Federal Reserve Board. More specifically the Board is authorized to determine so-called margin requirements, referring to the percentage of security purchases for which a purchaser must pay cash, thus stipulating the maximum he may borrow. During the Great Depression the possibility of buying stocks on credit had spelled ruin for many people who found themselves heavily in debt after stock prices had fallen.

The Act also restrains the manipulations of corporate "insiders" by requiring information about the remuneration and other financial advantages of the officers, directors, and principal stockholders of corporations. If insiders use their superior knowledge for short-term operations in the corporation's stock, profits from such transactions may be recaptured by the corporation. No insider is permitted to sell the corporation's stock short. The use of proxies, often instrumental to the perpetuation of the insiders' control, is regulated by the Act.

Not all securities transactions occur at the stock exchange. Bills have frequently been introduced in Congress to extend the rules governing securities traded at national exchanges to the unlisted securities of corporations with substantial assets and large numbers of stockholders. In terms of the total value of security transactions, the so-called "over-the-counter" markets are far more important than the recognized stock exchanges. In over-the-counter transactions, brokers get together informally, usually over the telephone rather than over a real "counter." Federal, state, and municipal securities are traded in these markets. Of sales of corporate stock, about one third of the total value is transacted over the counter. A certain amount of regulation of over-the-counter markets was provided by amendments to the Securities Exchange Act, passed in 1936 and 1938. Here we find a pattern of control often applied by the federal legislator: the denial of the use of the mails to those who do not live up to certain standards. Security dealers and brokers, regardless of their connection with an organized exchange, may not use the mails unless they are registered with the Securities and Exchange Commission. They are also, in effect, compelled to join a professional organization, the National Association of Securities Dealers, which promotes observance of the law among its members, prevents fraud and manipulation, and enforces adequate standards of professional behavior.

Public Utility Holding Company Act of 1935. Both the Securities Act and the Securities Exchange Act do no more to discourage or promote the issue of specific securities than to require fair play and sufficient information. "Truth in securities" may be said to be the watchword of this legislation. The Public Utility Holding Company Act goes further; its objective was the elimination of certain holding companies in the gas and

electric industries, where their operations had been especially obnoxious. A holding company is a corporation that controls other corporations through the ownership of their stocks. The holding-company device enabled unscrupulous manipulators to dominate vast utility networks to the disadvantage of affiliated companies, investors, and customers. Utility holding companies must register with the Securities and Exchange Commission; and they may, in effect, issue bonds and preferred stock only for refunding and similar operations. The Commission is given broad powers of control over the types of securities which may be issued and the conditions attending their sale, as well as over the acquisition of securities by such companies and other transactions between the holding company and its subsidiaries. Public utility holding company systems must be simplified and limited to a single integrated system, that is, to one reflecting technological conditions and regional requirements rather than financial manipulation.

Chandler Act of 1938. This Act, important as it is, applies to a rather special situation—viz., corporate failures and reorganizations. On occasion the interests of the various parties to such procedures diverge; there are opportunities for all sorts of machinations resulting in the neglect of those groups which are not vociferous or otherwise badly protected. The Chandler Act improves the reorganization procedure by insisting on the appointments of trustees whose impartiality and disinterested management is not impaired by the ownership of securities of the corporation in reorganization. It also assigns to the Securities and Exchange Commission important functions in such procedures.

Investment Company Act of 1940. An investment company is an organization which buys securities for the purpose of investment. Its own stock is held by individual investors. The organization of such concerns had made much headway during the speculative excess of the twenties. Abuses of the trust placed in the management of the investment company had been especially flagrant. The Investment Company Act provides for a system of comprehensive regulation, by the Securities and Exchange Commission, of the transactions of such companies, with the view of promoting honesty, competence, and independence. Investment companies have again come to assume considerable importance in recent years.

Investment Advisers Act of 1940. Many persons buy advice pertaining to security transactions from professional experts called investment counselors. The Investment Advisers Act is designed to raise the professional standards that prevail among these people. They must register with the Securities and Exchange Commission and are forbidden to engage in certain practices considered undesirable.

The Securities and Exchange Commission Today. Many years of unbroken prosperity have diminished the interest of the public in the operations of the Securities and Exchange Commission. The agency finds its work hampered by fiscal economy, and with the passage of time the pioneering

elan, which inspired it during the thirties, has given place to drab routine. As stock market manipulation and abuse has mounted in the face of increasing stock prices and increasing participation of the public in stock market speculation, the work of the agency has become more important than ever.[2] The wide scope of its operations is indicated by the fact in a single fiscal year, that of 1959, it processed some 1,226 registration statements covering $16.6 billion of securities. Approximately 5,000 brokers and dealers are registered with it. In the fiscal year of 1958 it investigated 1,425 dubious transactions. The New York regional office alone brought over 200 shady stock promoters to court in 1956–58, mostly people that were engaged in so-called "boiler-room" operations, that is, high-pressure salesmen who sold the unweary a bill of goods over the telephone. Other manipulators defraud the public by starting unfounded rumors designed to affect stock prices, or they create the impression that a stock is actively traded by buying and selling among each other.

The personnel of the agency is by far too small in number to handle its job adequately. There are some 1,000 people employed by it, less than the personnel of a large brokerage office. Its budget of $8 million, of which one third is recouped in fees, compares with a market value of listed stock issues registered under the 1934 Act of $338 billion as of June 30, 1959.

THE MECHANICS OF EXTERNAL FINANCING

A corporation which desires to utilize external sources of finance may obtain funds either in the form of a term loan from a commercial bank or through the sale of securities—that is, stocks or bonds. The sale of securities may be accomplished either in the form of so-called "private" placements; or the issue may be underwritten by an investment bank, which then distributes it among its customers.

Funds for external financing, or investment funds, may be made available from the savings of private individuals. Apart from these, there are institutional investors—commercial and savings banks, insurance companies, trust companies, and others—who may wish to hold some of their assets in the form of corporate securities. As late as twenty years ago, investment banks played the leading role in channeling the funds of private individuals, trusts, commercial and savings banks, and other organizations into newly issued corporate securities. Investment banks underwrote such issues, purchased them, and subsequently marketed them in small or large parcels among the final buyers. The importance of the investment banks is now much reduced, owing to the growth of internal financing and of private placements.

[2] See "Wall Street's Policeman," *Economist*, November 28, 1959, p. 866; "The SEC: Caveat Emptor," *Fortune*, November, 1958, pp. 140 ff.

Public Offerings. When the offering is a "public" one and is done with the help of an investment bank, the price at which the corporation can dispose of the issue usually is the result of negotiations with the investment bankers. These are sometimes inclined to insist on an exclusive relationship with their clients and to respect each other's territories. While such an attachment may, on occasion, be beneficial, there may be other instances where it proves harmful for the investing public and for the corporation whose security is to be sold.

As an alternative to negotiated securities issues, there also exists competitive bidding for newly issued securities. The regulatory authorities have made competitive bidding mandatory for the bulk of all new railroad and public utility bonds, but owing to the resistance of the investment bankers the practice has made little headway with respect to industrial bonds. Under competitive bidding the price at which the issuer sells the security to the investment banks is not the outcome of negotiations but of a process of bidding, with the interested investment banks submitting sealed written proposals. The regulatory bodies in the transportation and public utilities field insist upon this practice, because in these lines of business the companies are considered under duty to the public to obtain their capital at the lowest cost consistent with a sound financial structure. Experience has indeed shown that under competitive bidding the "spread" or gross profit to the underwriting investment banks—that is, the difference between the price they pay the issuer and the initial offering price they charge the public—is about one half of that prevailing for negotiated issues. The reduction of the spread implies that either the issuer or the investor, or both, receive a better price. Another advantage of competitive bidding is the greater independence of the issuer from the investment banks.

A case could be made for the wider application of competitive bidding, but in actual practice efforts are under way to reduce it even in the utilities field. These efforts are vigorously supported by many investment banks. Cogent reasons for this are hard to find, however. It used to be said that under competitive bidding, where the bidders are not certain whether they will obtain the issue, they are unable to devote themselves to the necessary exhaustive investigation of the proposed issue. This argument lacks conviction, because under the rules of the Securities and Exchange Commission and of the regulatory bodies in the transportation and public utilities field, the companies are under duty to provide detailed information about all financial data relating to a new issue. Another objection to competitive bidding refers to the possibility of irresponsible bidding. But there is no case on record where a bidder would have failed to honor his commitment.

Investment-Banking Problems. Investment banks now find themselves on the defensive because of the relative shrinkage of the volume of their business. Certain practices of investment banks have in the past been frequently under attack, but the regulation of the securities markets has on the

whole improved the situation. Complaints are still heard about the occasional manipulation of the market price of new securities. Sometimes investment bankers lend temporary support to the market price in order to prevent it from falling below the price at which they want to dispose of a new issue. Once the distribution is completed, the price is allowed to drop. Critics have pointed out that this may tend to deceive the investing public, which may believe that the market price came about without the intervention of the investment banks.

Monopolistic practices allegedly committed by a number of leading investment banks came under attack in 1947, when the Department of Justice started antitrust proceedings against seventeen such institutions. They were charged with conspiracy to dominate the securities field and to eliminate competitive bidding. The seventeen were said to have managed 69 per cent of the securities issued between 1938 and 1947. After a three-year trial the case was dismissed in 1953.

Private Placements. Private, or direct, placements occur when, instead of a "public" distribution, the new securities are sold directly by the issuing corporation to the final buyer—that is, in practically all cases, to a life insurance company. The total assets of the life insurance companies are over $110 billion, marking a tenfold increase in 35 years. The expansion of the life insurance companies as guardians of the people's savings has been paralleled by an increase in the private placement of corporate bond issues. In recent years, private placements have been close to, and at times in excess of, 50 per cent of the total value of new corporate bond issues.

Private placements affect primarily the bonds of industrial and financial corporations. The financing of public utilities and railroads is subject to rules laid down by regulatory authorities, and generally these do not permit the direct placement of new railroad or public utility bonds.

Corporations have come to prefer private placements for a variety of reasons. If there is no public distribution the issuing corporation does not need to file a registration statement with the Securities and Exchange Commission, and it does not have to observe a waiting period required between the filing of the statement and the sale of the issue. Corporations particularly dislike the waiting-period requirement, since conditions at the capital market change and may become less favorable during such periods of delay. Regardless of this consideration, however, the growth of the life insurance business has made available funds that can be reached relatively easily by means of private placements. The services of the intermediary investment banker can be more readily dispensed with when a few of the giant concerns in the insurance field are to be contacted than when a large number of small investors must be approached.

From the point of view of the issuer of the securities, the elimination of the middleman, or the reduction of his role to that of an advisor, may mean a diminution of the cost of placement. Investment banks serve in many

cases of private placements as agents or as finders. The issuing corporation may also consider it advantageous to have a single owner of an issue, and one who is in a strong financial position. In the case of financial adversity arising in the future, the borrower might find it easier to secure temporary adjustments from a lender of this type than from a multitude of small investors. When lenders are few and financially powerful, there arises, of course, the danger that they may come to dominate the borrowing concerns. In the past the investment bankers have occasionally been accused of assuming a dominating position over their clients. It remains to be seen whether similar accusations will be launched against the great insurance concerns.

The soundness of private placements is challenged, first of all, by some investment bankers, who complain about the loss of important functions. Proposals have been made that privately placed securities be made subject to Securities and Exchange Commission regulation and registration, just as are public offerings. The avoidance of registration, it is expected, would then cease to be an incentive for private placements. Public placements might be made more palatable to the borrowers by a change in legislation, permitting offers for the sale of newly issued securities, or the solicitation of offers to buy, before the end of the registration period. It is doubtful, however, whether the trend toward private placements will come to an end so long as the growth of the insurance business creates conditions that are so favorable for the continuation of the practice. In any event, it cannot be denied that under private placements the large institutional investors tend to obtain the cream of the crop of new securities issues, while small institutional and private investors must be satisfied with what is left over.

SUMMARY

Business expansion may be financed from internal or external sources. Internal financing through the retention of earnings has come to be of great importance. Its principal weakness is the replacement of the market test for expansion by the decision of the corporate officers.

The securities markets are subject to federal regulation enacted during the thirties. "Truth in securities" may be said to be the watchword of this legislation, which is administered by the Securities Exchange Commission.

If a corporation uses external sources of funds, it may sell a bond issue directly to an insurance company. A substantial part of all bonds are now privately placed in this manner. If there is a public distribution of the new issue, the price may either be negotiated or determined by competitive bidding.

The growth of internal financing and of private placements has considerably diminished the importance of the investment banking business.

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STUDY QUESTIONS

1. What are the different ways of financing business investment?
2. What is the relative importance of the different sources of investment funds?
3. Why would some firms forego opportunities for bond financing?
4. Is it cheaper for a firm to finance expansion through the issue of bonds or of stocks?
5. What public policies were applied to retained earnings in the United States during the late 1930's?
6. What are some undesirable features of business financing from retained earnings?
7. What are some desirable features of business financing from retained earnings?

8. Why do stockholders on the whole support business policies of retaining earnings?
9. Approximately what is the average ratio of dividends to retained earnings?
10. In a period of rising prices, are all retained earnings available for the expansion of a business?
11. What were the factors responsible for the passage of legislation regulating the securities markets in the early 1930's?
12. With the securities markets regulated under various laws, can the investor be assured that the purchase of securities will turn out to his advantage?
13. Which agency of the government is in charge of the establishment of margin requirements for the purchase of securities?
14. What are the margin requirements right now? (Consult the *Federal Reserve Bulletin.*)
15. What are over-the-counter transactions?
16. Are all transactions in securities subject to regulation by the Securities and Exchange Commission?
17. How is the price determined at which newly issued securities are sold?
18. What are the advantages of competitive bidding for newly issued securities?
19. What is meant by private placements?
20. Are there undesirable features of private placements?

Chapter 5 — PROBLEMS OF ECONOMIC MEASUREMENT AND PREDICTION

In the preceding chapters, we have occasionally alluded to the sudden reversal of economic conditions which occurred during the late twenties. The violent character of the economic fluctuations which plagued the world, and especially its industrially most advanced parts, during the Great Depression was not without influence on economic thought. Interest arose in theories that would give a satisfactory explanation of the level of general economic activity which had dropped so abruptly and stayed low so persistently. Instead of the economics of individual commodity and factor prices, of the firm and of the industry, economists came to concentrate their attention on the role played by large aggregates, like the national income, the total demand for labor, and the volume of employment. Microeconomics, the study of small economic units, was supplemented by macroeconomics, the study of aggregates. In this new theoretical setting the problems of investment, consumption, and employment assumed new significance. There will be ample opportunity to explain this more fully in Chapters 6 and 9, below, which are devoted to consumption and employment. For the time being, we are interested primarily in new concepts of social accounting, tools of measurement, that developed partly under the influence of the new ideas, but chiefly in the course of the refinement of statistical techniques.

Economists have become eager to formulate theoretical concepts that would be "operational" in the sense that they would lend themselves to numerical measurement. The validity of propositions formed by combining operationally defined terms can be tested more adequately than propositions concerning utility, sacrifice, plain, pleasure, or welfare—terms which rarely admit of numerical measurement. Increasing use of operational terms has facilitated the statistical testing of economic theories and has led to the rise

of a new science, econometrics, which is concerned primarily with the numerical evaluation of economic concepts.

NATIONAL ECONOMIC ACCOUNTING

The various notions of the national income are the principal result of the new emphasis. They are over-all measurements of economic activity whose value is increasingly recognized in government and business. National income estimates are currently published by the Department of Commerce. For earlier years, computations have also been made by the National Bureau of Economic Research, a private organization that has done much to stimulate work in this field. On the whole the official estimates of the Department of Commerce do not go back further than to 1929. National Bureau figures have been computed for a considerably longer period, extending back to 1869. Estimates prepared by the National Industrial Conference Board reach back still further.

Personal Income. Personal income is much the simplest of the various national income concepts. It is also the only one available by states and therefore especially useful for regional and local market research. Personal income is a measure of income distributed. Thus, it neither measures income produced nor income earned but not distributed. It comprises all payments to individuals—wages, salaries, income of unincorporated enterprises, rents, dividends, and interest. These payments are included regardless of the fact that they may, or may not, reflect the current production of goods and services. Payments made independently of current production are called transfers. Notable examples are benefits from social insurance funds, pensions, veterans allowances, and tax refunds. In effect, interest on the federal debt is also treated as a transfer item, because the bulk of the government debt was created to finance wars and past expenditures. Income in kind is included; for example, that accruing to members of the armed forces, as well as imputed income, such as rent for owner-occupied homes.

Excluded from personal income are capital gains resulting from the sale of assets, this in spite of the fact that the federal tax collector considers such gains taxable income. Capital gains, for example, from sales of stocks or bonds, result from changes in ownership of existing assets, not from the production of new ones. Likewise excluded are undistributed profits of corporations; they are earned but not distributed. Furthermore, those productive activities are excluded which generally are considered as outside of the economy, such as the value of the services of housewives. Hence, if a man marries his housekeeper, the national income will fall by the amount of her previous earnings. And there are finally excluded earnings from unlawful activities. They may be acquisitive, but are not considered productive.

Personal income does not measure welfare, and neither do the other

national income concepts which are analyzed below. The dollars in which income is expressed are not weighted in accordance with any criterion of social desirability. The earnings of the liquor producer are measured by the same yardstick as those of the baker.

Disposable Income. Disposable income can be derived from personal income by deducting from it income and other personal taxes. The difference measures the amount of income at the disposal of consumers. According to its use, disposable income is divided into two parts, personal consumption expenditure and personal saving (see Fig. 14). By definition the sum of these is always equal to disposable income.

National Income. National income, in the technical sense of the term, is related to personal income in that both concepts measure the earnings of the factors of production. But unlike personal income, national income includes earnings regardless of their distribution. National income can be derived from personal income by adding to it undistributed corporate profits and contributions to social insurance and by subtracting from it transfer payments which do not reflect the current production of goods and services.

National income can be defined as the value of the current net output of goods and services at factor prices (that is, at prices containing only the rewards of factors of production). Since it is a measure of current production, the transfer payments which were included in personal income must now be deducted. In normal years national income will be larger than personal income, since during such periods undistributed corporate profits will exceed transfer payments. At other times, undistributed corporate profits may be small; they may even be negative if corporations reduce reserves to pay dividends. Transfer payments for relief and the like, then, may be large. If this is the case, as was true during the Great Depression, personal income is larger than national income. Almost the same occurred in 1946 when mustering-out pay and veterans allowances contributed to a considerable increase in transfer payments.

Net National Product. While the national income is a measure of the current output of goods and services at factor prices, the net national product indicates the value of current output at market prices. The national income measures the resturns to the factors of production; the net national product is the sum of payments made by the buyers of currently produced goods and services. These values are not identical. Goods are sold at prices that include more than the returns to the productive factors. The difference between market and factor prices is equal to the sales taxes and other indirect taxes paid by business. The purchaser of goods pays the market price; out of this, businessmen pay a variety of taxes, and only what is left over is available for distribution among the factors of production. The net national product can be derived from the national income by adding to it indirect business taxes.

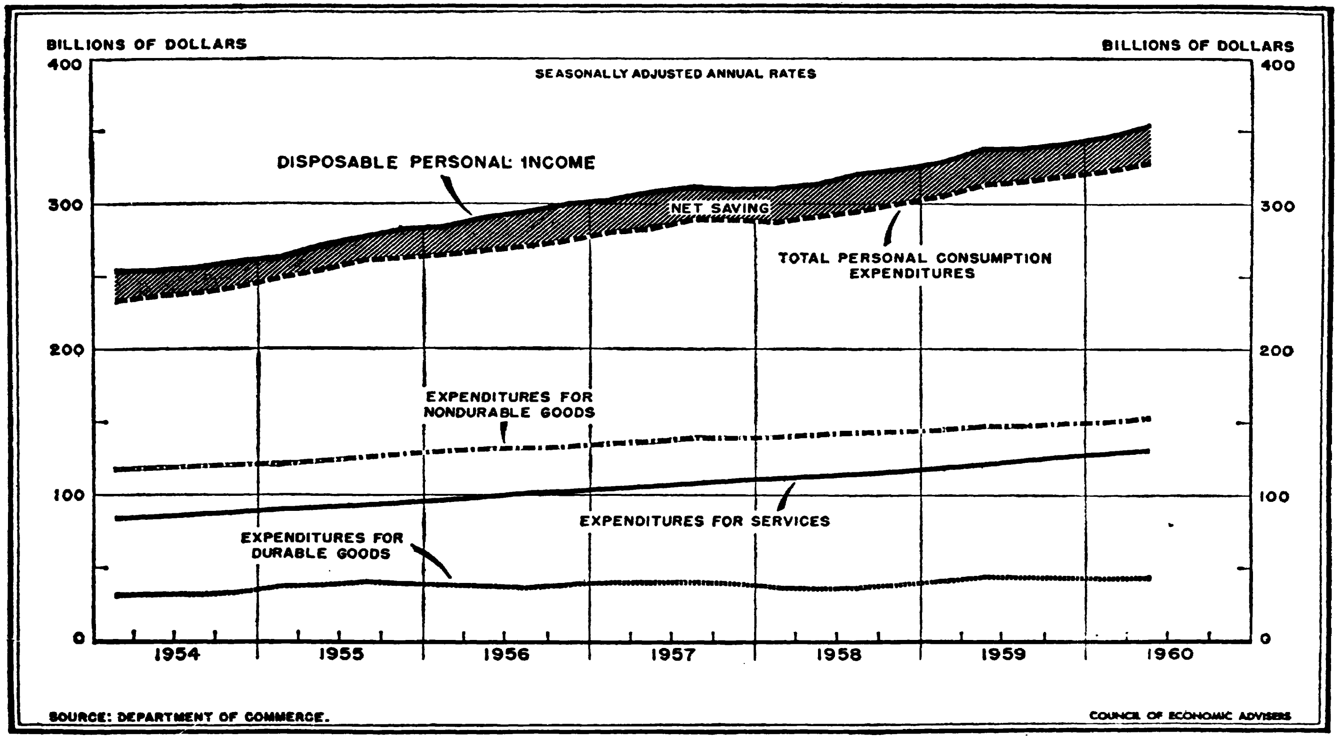

FIG. 14. Since the Great Depression, the upward movement of personal income and of disposable income has rarely been interrupted. Personal, or net, saving is substantial. From *Economic Indicators*, August, 1960, p. 5.

Gross National Product. The gross national product resembles the net national product in that both concepts measure the current output of goods and services at market prices. It is called "gross," because it includes the net national product plus an estimate of the value of the contribution of capital accumulated in the past. This estimate is made in the form of capital consumption, or depreciation, charges, which measure the decline in the value of assets whose useful life extends beyond a single accounting period. Unlike the net national product, which measures only the contribution of current productive activities, the gross national product includes the value of the contribution of the past: of a steel mill constructed years ago, of a piece of machinery manufactured during earlier periods, or of a truck that is no longer new. Gross national product contains an element of double counting, which would become especially pronounced if an attempt were made to add up the gross national products of several years. In this case the value of capital goods would show up twice: first during the year of their production and again over the period during which their services are incorporated in output.

The capital consumption charges may also be interpreted as an estimate of the currently produced goods and services designed to keep the nation's stock of capital intact. The concept of gross national product did indeed develop during World War II, when it was desired to obtain a measurement of total output that would include not only consumption and net investment but also goods and services required for the maintenance of capital. These goods and services (reflected mainly by depreciation charges) are necessary only in the long run. During short periods, they may be curtailed with relative impunity, and the resources devoted to them allocated to tasks considered more urgent at the moment.

Gross national product is necessarily larger than net national product or national income. Since the labor of a man devoted to the maintenance of capital counts equal to that of another who creates current income, gross national product is more closely related to the volume of employment than are other national income concepts.

Table 1 shows, first, the derivation of personal income and, subsequently, the construction of the other concepts as they are built up one upon the other. Figures are in billions of dollars and for the year 1959.

Gross National Expenditure. The gross national product thus computed is essentially an income concept. It is the sum of income payments to the factors of production plus indirect taxes and capital consumption charges. The total incomes which are earned throughout the country are equal to total expenditures. Since everybody's income is somebody else's expenditure, gross national expenditure is a corollary to gross national income; and, if properly computed, both figures should be equal. Gross national expenditure may be calculated directly as the sum of consumer, business, and government spending, plus the excess of exports over imports

TABLE 1

DERIVATION OF PERSONAL INCOME, NATIONAL INCOME, NET NATIONAL PRODUCT, AND GROSS NATIONAL PRODUCT, IN BILLION DOLLARS, 1959*

Personal Income		
	Labor income	260
plus	Entrepreneurial income and net rents and royalties	58
plus	Dividends and interest	35
plus	Transfer payments	27
equals	Personal income	380
less	Personal taxes	46
equals	Disposable income	334
less	Personal consumption expenditures	311
equals	Personal saving	23
National Income		
	Personal income	380
plus	Undistributed profits and increase in inventories	34
plus	Social insurance contributions	18
less	Transfer payments and interest on public debt	34
equals	National income	398
Net National Product		
	National income	398
plus	Business taxes	40
equals	Net national product	438
Gross National Product		
	Net national product	438
plus	Capital consumption allowances	40
equals	Gross national product	478

* *Survey of Current Business*, February, 1960, pp. 7 ff.

(as shown in Fig. 15). An estimate of gross national expenditure, in billions of dollars and for 1959, is as follows:

Gross National Expenditure		
Personal consumption expenditures		311
Composed of: Durable goods	43	
Nondurable goods	148	
Services	120	
Gross private domestic investment		70
Composed of: New construction	40	
Producers' durable equipment	26	
Inventory change	4	
Net foreign investment		−1
Government purchases of goods and services		98
Gross national expenditure		478

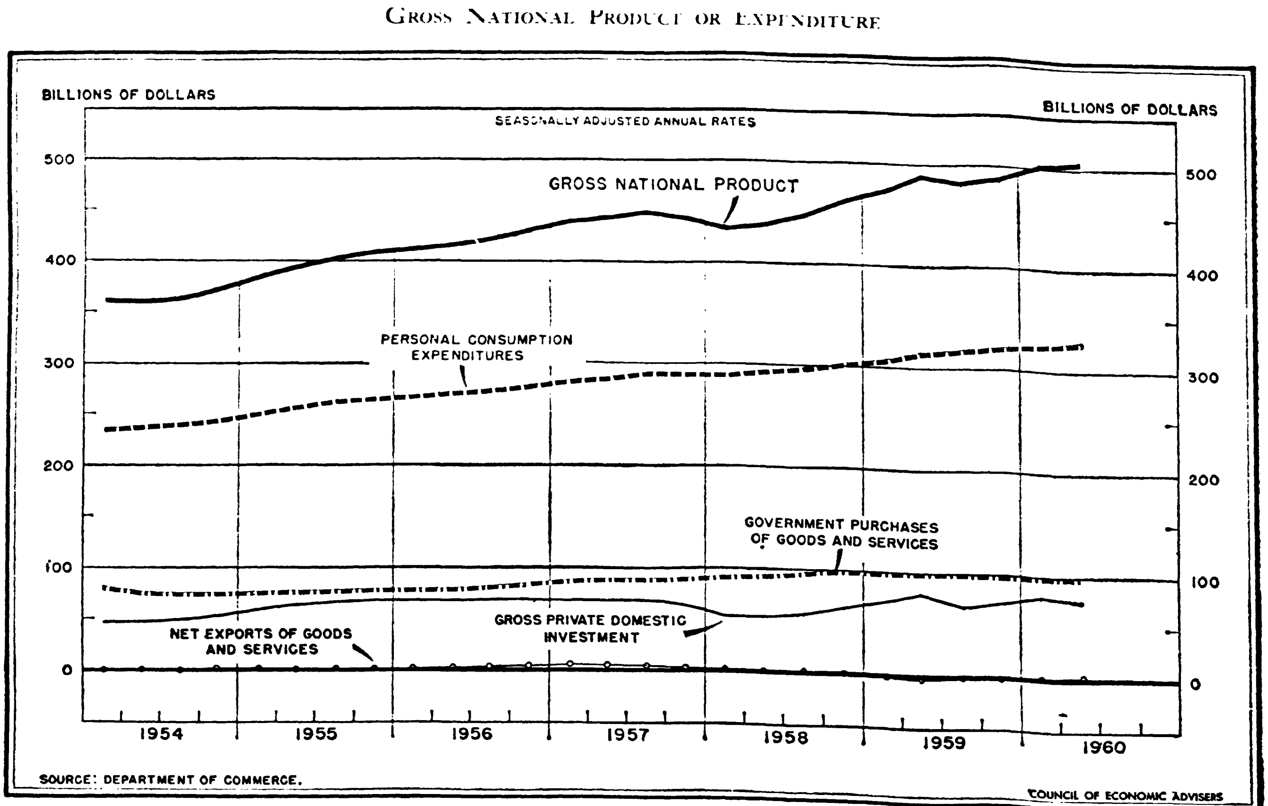

FIG. 15. Gross national product is equal to gross national expenditure. Gross national expenditure is the sum of personal consumption expenditures, government purchases of goods and services, gross private domestic investment, and net exports of goods and services. From *Economic Indicators*, August, 1960, p. 2.

THE NATION'S ECONOMIC BUDGET

Gross national expenditure, more than its equivalent, gross national product, shows in isolation the operation of the principal variables which determine the level of economic activity: the expenditures of consumers, of the government, and of business. Of these, consumption expenditures while by far larger than the others, are least volatile and least subject to percentagewise change. More than other types of expenditures, consumer expenditures for nondurables and services are "induced" or "endogenous" in the sense that they reflect narrow economic forces, more specifically, the level of consumer income. The expenditures of business and government, on the other hand, are more "autonomous" or "exogenous." There is no close correlation between them and the incomes of business or government. Extra-economic forces are important determinants of these expenditures. For example, the domestic constellation of political factors may impress business as favorable and may, by raising profit expectations, encourage investments. Or investments may be stimulated by technological advances. In the case of government expenditures, they are influenced by the legacy of past wars, by military requirements, by foreign needs which are relieved on humanitarian or political grounds, and by the demand for social services that are taken for granted in modern societies. To a considerable extent, even the excess of exports over imports (net foreign investment) is determined by forces that operate outside of the economy: by poor harvests, for example.

The Nation's Economic Budget is an interesting arrangement of the major components of gross national product or expenditure. It is compiled in the periodic Economic Reports of the President to the Congress pursuant to the Employment Act of 1946. Table 2 shows the Nation's Economic Budget for 1959.

The Nation's Economic Budget should not be confused with public budgets of the ordinary variety which list the revenues and expenditures of governments. The Nation's Economic Budget contains these as well as those of business and consumers. The total of all these expenditures or revenues is greater than gross national expenditure or product if transfer payments which do not reflect current productive activities are included in the Nation's Economic Budget. If they are deducted from the receipts and expenditures, gross national product or expenditure remains as difference.

The expenditures of the major economic groups are important, because they determine the level of income of the same groups taken together. This does not mean that incomes and expenditures are equal for each group in isolation. But the combined incomes of all groups, considered together, are equal to combined expenditures.

The Consumer Account. The income item in the consumer account is

TABLE 2

THE NATION'S ECONOMIC BUDGET FOR 1959, IN BILLION DOLLARS*

Economic Group	Receipts	Expenditures	Excess of Receipts (+) or Expenditures (−)
Consumers:			
Disposable income	334	....	....
Personal consumption expenditures	....	311	....
Personal net saving (+)	....	....	+23
Business:			
Gross retained earnings	51	....	....
Gross private domestic investment	....	70	....
Excess of investment (−)	....	....	−20
International:			
Net foreign investment	....	−1	....
Excess of receipts (+)	....	....	+1
Government (federal, state, and local):			
Tax and nontax receipts or accruals	129	....	....
Less: Transfers, interest, and subsidies (net)	34	....	....
Net receipts	95	....	....
Total Government expenditures	....	132	....
Less: Transfers, interest, and subsidies (net)	....	34	....
Purchases of goods and services	....	98	....
Deficit (−) on income and product account	....	....	−3
Statistical discrepancy	−2	....	−1
Gross national product	478	478	0

* *Economic Report of the President*, January, 1960 (Washington, D.C., U.S. Government Printing Office, 1960), pp. 162 f.

equal to disposable income as defined above it. It is derived from the earnings of the factors of production less personal taxes. Personal taxes are deducted, because they figure among the receipts from the public in the government account and thus must be eliminated in the consumer account in order to avoid double counting. When the consumer expenditures fall short of income after taxes, there will be positive savings. These are offset by expenditures incurred by the other economic groups.

The Business Account. On the income side the business account con-

tains undistributed profits and capital consumption allowances on corporate as well as noncorporate capital, including residences; on the expenditure side, gross private domestic investment. Hence, operating expenses are not included among the expenditures of business. They are part of the prices charged to consumers and therefore appear among consumer expenditures. On the income side, only included is the residual revenue that remains when payments to the factors of production have been made. These payments make up part of consumer receipts.

More specifically the business receipts are derived from corporate profits less corporation income taxes and dividends. To this are added depreciation and other allowances for the maintenance of capital, while windfall profits resulting from inventory appreciation are deducted. Business expenditures are composed of gross private domestic investment, i.e., payments for additions to the stock of capital and for its replacement. Note that private residential construction is included in gross private domestic investment.

The International Account. There is no entry on the receipt side of the international account since the excess of expenditures over income is shown in the expenditure column. The expenditure item consists of the net balance of receipts from the sale of goods and services over payments, since it is this portion which is not balanced by an equivalent amount of foreign goods and services added to the domestic supply. The net balance of receipts is reduced by unilateral transfers, such as private gifts or government aid to foreign countries. Such transfers are included among consumer and government expenditures, respectively. If they are large enough, they will more than offset the export balance, causing the expenditure entry to become negative, as in 1959. The net foreign balance is financed with the help of loans granted to foreigners (foreign investments). A negative balance denotes disinvestment.

The Government Account. Government receipts include business, payroll, and personal taxes and miscellaneous receipts. Government expenditures consist mainly of payments for goods and services currently rendered but also include numerous transfer payments: veterans allowances, social insurance benefits, pensions, and the like. Proceeds from government borrowing are not included among the receipts; if net borrowing occurs, it appears as deficit.

Adjustments. From these inclusive accounts of the nation's receipts and expenditures, gross national product (or expenditure) can be derived if transfer receipts and payments are eliminated. Domestic government transfers are the most important items that must be deducted. They include benefits from social insurance, veterans allowances, tax refunds, pensions, and interest on the federal debt. Government transfers abroad are composed of loans to foreign governments, subscriptions to international organizations, and the like.

LIMITATIONS AND USES OF NATIONAL INCOME DATA

National income data, as arranged in the form of the Nation's Economic Budget, reveal the relationships between the various factors which operate in the economy. This is one of their important purposes. These data are, of course, totals or aggregates, a feature that is an element of strength as well as of weakness. If we are interested in the over-all performance of the economy, we cannot inspect each individual phenomenon but will want to be guided by concepts that absorb the individual phenomena in their entirety. But aggregates have component parts which do not all possess similar characteristics. The user of national income estimates must be aware that the totals with which he works may hide a variety of forces which possibly work in opposite directions.

Furthermore, excessive reliance on aggregates may be conducive to a mechanistic view of the economic universe. "Totals," it has been observed, "used without adequate appreciation of their limitations have in them the seed of totalitarianism."[1] Not all totals lend themselves to manipulation by public policy. Control over aggregates often means control over the individual transactions which enter into the aggregates.

As we shall see presently, there are other shortcomings of national income estimates. In spite of all, however, they are far superior to qualitative judgments and have become useful, if not indispensable, instruments of modern economics. During World War II, our system of national economic accounting, which was more highly developed than that of other countries, is judged to have had a bearing on victory "considerably greater than that of atomic energy."[2] Turning from war to peace, we have noted that the national income does not directly measure welfare. There is no doubt, though, that income, in a way that may not be easily traced, is related to welfare. A. C. Pigou, a leading British economist, has indeed established criteria of economic welfare which all are based upon the national income. He holds that a country's welfare improves when the national income is larger, more stable, and more widely diffused. In the light of these criteria, welfare has improved in the United States since the thirties, but apparently it has not done so throughout the world at large: the gap between the wealthiest and poorest countries seems to have grown wider rather than narrower, because the incomes of the former have increased at so rapid a rate.

Comparisons of National Incomes. This observation immediately confronts us with a number of difficulties which we encounter when making

[1] F. A. Goldenweiser, *Monetary Management* (New York: McGraw-Hill Book Co., Inc., 1949), p. 2.

[2] John K. Galbraith, *American Capitalism: The Concept of Countervailing Power* (Boston: Houghton Mifflin Co., 1952), p. 80.

comparisons of national incomes. Such comparisons may be temporal—that is, of national incomes of the same country for different periods of time—or spatial—that is, of national incomes of different countries for the same period of time.

Temporal comparisons, for example, of the national income of the United States in 1950 and 1960, are expressed in terms of a denominator—the dollar—that is lacking in stability. Prices during this period increased by 20 per cent, and the value of the dollar fell commensurately. Even if price fluctuations are less pronounced at other times, changes are a virtually perpetual occurrence. The effect of price changes on the national income may be eliminated with the help of suitable deflators, as explained below, p. 157. The result is an estimate of changes in the national income in real terms, or a national income estimate in terms of constant dollars. To facilitate comparisons, such and other estimates may be calculated in per capita terms.

Still more difficult are comparisons of the national incomes in different countries. These are expressed in the countries' national currencies; and before a comparison is feasible, they must be converted into a single currency serving as common denominator. However, rates of exchange, that is, the price of one currency in terms of another, are not always easily ascertained. They may be purely nominal or fluctuating, or there may be multiple rates for different transactions. Comparison of the national incomes in different countries are made, nevertheless, although they must be used with caution. This applies with especial force to comparisons between countries that are on widely differing stages of economic development. Incomes in the underdeveloped countries tend to be underestimated. In these countries, a large part of the output does not pass through markets but is consumed directly by the producers—by the farmers, for example. Moreover, even if this part of the output is estimated correctly in terms of volume, the valuation usually given to it tends to be an unduly low one. Cereals, for example, which are consumed on the farm, are liable to be valued in terms of the raw produce, with no valuation placed on domestic processing.

In an advanced country, on the other hand, a substantial amount of income is generated by wholesaling, jobbing, retailing, processing, and other services of distribution and transportation. In the United States, for example, less than 3 cents of a 20-cent loaf of bread goes to the farmer; the rest accrues to the millers, grain handlers, transportation agencies, bakers, and retailers. From a $4 cotton shirt, the farmer receives 30 cents, with $3.70 going to processors and distributors. In the underdeveloped country the counterpart of all these activities takes place in the home, and no adequate value is placed on them. These considerations have to be kept in mind when an appraisal is made of incomes in underdeveloped countries.

Table 3 brings together a number of estimates of per capita incomes per year in 1952–54, expressed in United States currency. As the table indicates,

TABLE 3

ESTIMATES OF PER CAPITA NET NATIONAL PRODUCT OF 55 COUNTRIES, CONVERTED INTO U.S. DOLLARS, ANNUAL AVERAGE, 1952–54*

United States	1,870	Colombia	250
Canada	1,310	Panama	250
Switzerland	1,010	Brazil	230
New Zealand	1,000	Greece	220
Australia	950	Mexico	220
Sweden	950	Turkey	210
Luxembourg	890	Portugal	200
Belgium	800	Japan	190
United Kingdom	780	Jamaica	180
Iceland	760	Dominican Republic	160
Denmark	750	Guatemala	160
France	740	Ecuador	150
Norway	740	Honduras	150
Finland	670	Philippines	150
Venezuela	540	Paraguay	140
Germany	510	Egypt	120
Netherlands	500	Peru	120
Israel	470	Ceylon	110
Argentina	460	Rhodesia & Nyasaland	100
Puerto Rico	430	Tailand	80
Ireland	410	Belgian Congo	70
Austria	370	Korea	70
Chile	360	Pakistan	70
Cuba	310	India	60
Italy	310	Kenya	60
Malaya	310	Burma	50
South Africa	300	Uganda	50
Lebanon	260		

* United Nations, *Per-Capita National Product of Fifty-five Countries: 1952–54*, Statistical Papers Series E, No. 4 (New York, 1957).

there is a wide gap even between the per capita income of the United States and the incomes of the six fortunate countries closest to the United States. About half of the population of the world lives in countries with per capita incomes of less than $200, and for about a third the per capita income is less than $100 a year; but these and similar estimates must be interpreted with the caution suggested before. Of the total world income, about 40 per cent accrues to the United States.

ECONOMIC GROWTH AND ITS MEASUREMENT

National income estimates for a given year indicate status and rank for that year, but they fail to reveal the tendencies and trends, favorable or unfavorable, that may affect status and rank in the years ahead. Of late, experts have shown much concern about economic growth, which usually is defined in terms of rates of change of the gross national product, total or per capita, and adjusted for price changes.

Obviously, if the gross national product is used as a yardstick to measure economic growth, the rates of change can indicate no more than rates of change of the content of the gross national product, that is, of the output of goods and services. Thus, estimates of economic growth, thus defined, do not tell us anything about the conditions of work and leisure under which the output was produced. Nor do they tell us anything about the quality of the output and its composition, a matter to which we shall return in the following chapter.

A crucial step in the computation of growth rates[3] is the selection of the period over which economic growth is to be measured because what the rate will be will very much depend upon the choice of the initial and terminal years. As an illustration, a large variety of average annual growth rates for the United States for the period from 1950 to 1959 is presented in Table 4. To obtain an annual growth rate, select the initial year in the left-hand

TABLE 4

AVERAGE ANNUAL GROWTH RATES, GROSS NATIONAL PRODUCT IN CONSTANT 1954 DOLLARS, IN PER CENT, 1950–59*

Initial Year	Terminal Year 1950	1951	1952	1953	1954	1955	1956	1957	1958	1959
1950		7.4	5.4	5.1	3.4	4.3	3.9	3.6	2.9	3.3
1951			3.4	3.9	2.0	3.5	3.2	3.0	2.2	2.8
1952				4.4	1.3	3.6	3.2	2.9	2.0	2.6
1953					−1.6	3.2	2.8	2.6	1.6	2.4
1954						8.1	5.1	4.0	2.4	3.2
1955							2.1	2.0	0.5	2.0
1956								1.8	−0.2	2.0
1957									−2.3	2.0
1958										7.0
1959										

* Based on calculations of the Committee for Economic Development as published by the Joint Economic Committee, "Employment, Growth and Price Levels," *Report*, 86th Cong., 2nd sess. (Washington, D.C., U.S. Government Printing Office, 1960), p. 18.

column of the table, and then trace the line to the right until you reach the column for the terminal year as indicated on the top. If you follow this procedure, you will find, for example, that the average annual growth rate was 4.3 per cent for the period from 1950 to 1955, 2.0 per cent for 1955 to 1959, and that from 1956 to 1958 there was an average decline by 0.2 per cent.

Often the change will be most pronounced for short periods. It then reflects the movement of the business cycle, or other short-run phenom-

[3] The computation of the growth rate is done with the help of a formula that yields the percentage, which, if applied to each year's output, will raise it to that of the terminal year. For an explanation, see William A. Neiswanger, *Elementary Statistical Methods* (rev. ed.; New York: Macmillan Co., 1956), pp. 524–29; Frederick C. Mills, *Statistical Methods* (3rd ed.; New York: Henry Holt & Co., 1955), pp. 347–51.

ena. If longer periods are selected, variations between rates, depending upon the choice of the initial and terminal years, become smaller. Here are some average annual rates of change of United States real gross national product in constant 1954 dollars, taken from the same source as Table 4.

1909–59	2.9%
1909–19	2.4
1919–59	3.0
1919–47	2.7
1947–53	4.6
1953–59	2.4

In the light of our historical experience, our average rate of growth has not been a high one in recent years. Moreover, it has been below the corresponding rates of a number of foreign countries. Our growth rate for 1950–57, again in terms of real gross national product at 1954 prices, was 3.6 per cent, compared with 4.4 per cent for Canada, 4.6 for all the 18 European countries that formed the Organization for European Economic Cooperation (OEEC), 4.7 for France, 8.0 for West Germany, 5.8 for Italy, 2.4 for the United Kingdom, and 3.3 for Sweden. There are various estimates of such rates for Soviet Russia, our own Central Intelligence Agency placing it at approximately 7 per cent.

Variations of growth rates may seem small but they are nevertheless significant indicators of what went on in the past, and if they can be projected into the future they will predict what the gross national product will be in the years to come. Take the number 70, divide it by the rate, and you have the number of years which it will take for a given gross national product to double.

As a confirmation of the observation that the rate of growth of the United States economy has been relatively low in recent years, reference is sometimes made to the fact that our capacity to produce goods and services is well above our actual output of goods and services (see Fig. 16). In other words, there are unemployed resources, which, if utilized, would add to our gross national product. There is unemployed plant capacity as well as unemployed manpower. The number of our unemployed workers, while not so high as to be alarming, has in recent years been well above that which is considered an irreducible minimum. A more complete discussion of this matter will be found in Chapter 9, below.

That our rate of growth has not been higher in recent years is considered by a number of students of economics to have been a consequence of the policy of tight money pursued by the government. This policy, together with a stringent fiscal economy, was held necessary to fend off inflation. The discussion of this matter will be resumed later in Chapter 8. There are, however, a number of other factors which have retarded our growth. In the immediate postwar years, when the growth rate was high, there was

MANUFACTURING CAPACITY AND PRODUCTION

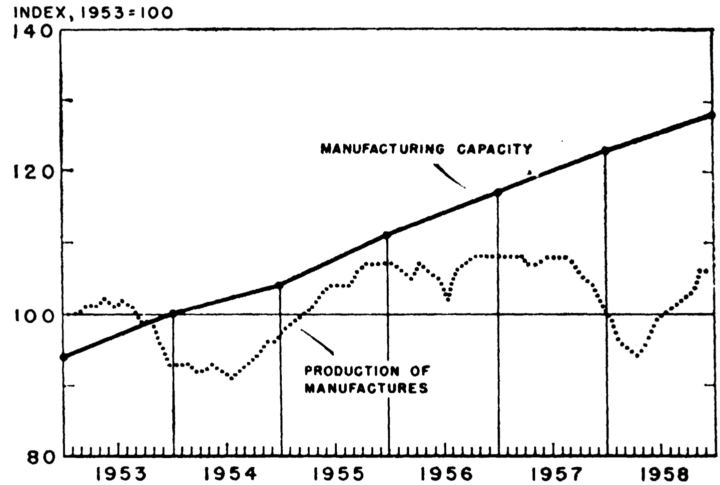

FIG. 16. Note the gap between rising manufacturing capacity and production. Source: McGraw-Hill Publishing Co., Board of Governors of the Federal Reserve System. From *Economic Report of the President*, January, 1959, p. 11.

huge pent-up demand for goods unsatisfied during the stringency of the war years. By now this backlog of demand has completely disappeared. Moreover, our defense effort, which absorbs so many of our resources, had to undergo a number of far-reaching transformations as the emphasis shifted from one type of defense to another one. This has brought about dislocations in our economy, causing, temporarily at least, unemployment and unused plant capacity among those segments whose products are no longer required for defense. Lastly, there is the tendency of our economy, discussed already in Chapter 2, to turn increasingly to the production of services rather than goods. This, indeed, is a manifestation of our wealth: we have so many goods that instead of using our resources mainly for producing still more goods we divert an increasing portion of them to the production of services. But in the production of many services the opportunities for substantial gains in productivity are much more limited than they are in the production of goods, and our total output would probably rise faster if we would give greater emphasis to the production of goods rather than of services, as is necessarily the case in the less wealthy and less highly developed economies of other countries which cannot afford to produce more services rather than more goods.

Should our growth rate be higher? To this question the economist cannot give an unqualified answer. The cost of retarded economic growth is unemployment. The cost of a speed-up might be inflation. A welfare economist, if faced with the choice between two policies, both having undesirable by-effects, might favor the one which raises total output so much that

those who stand to suffer from the ill iffects of that policy can receive full compensation. Thus the welfare economist might vote in favor of accelerated growth. But while the principle underlying his decision might be sound, historical experience shows no examples of adequate compensation to potential sufferers from inflation. Even if we would be ingenious enough to fashion a program providing such compensation, its execution might spell increased government regulation, a consequence detested by many.

The decision to favor accelerated growth might receive sounder backing on social and political grounds. Vigorous expansion goes hand in hand with the diffusion of wealth and income, with increased social mobility, the widening of opportunites for the individual to rise socially and economically, and the breakdown of barriers between the classes. Those who want to diminish the stratification of society thus might vote in favor of accelerated growth. And so will those who on political grounds wish to preserve and strengthen America's leading economic position in the world.

As far as the future is concerned, our growth rate should receive much stimulation from the large additions both to the labor force and to households resulting from the baby boom of the 1940's and 1950's. These will, as was indicated in Chapter 2, strengthen the demand for consumer goods as well as for capital to equip the new entrants into the labor force and to house their families. Let us investigate some other factors that will affect the future economic growth of the nation. Our control over our economic destiny is conditioned by our ability to make predictions.

FROM MEASUREMENT TO PREDICTION

In substance, economic prediction is based on projections of relationships observed in the past, with allowances for such modifications as the investigator deems proper. There is thus a good deal of subjective judgment that goes with all predictions, and while economic forecasts differ from informed guesses, qualitative judgments, and questionable laws of historical change, they are by no means entirely the result of mechanical processes. Prediction requires great gifts of imagination and of that type of intuition which arises from intimate knowledge of life. Since the science of prediction operates with the help of statistical techniques, the investigator must also be able to handle mathematical tools of analysis. All in all, he must live up to the ideal of a master economist who, in the words of Lord Keynes, "must be mathematician, historian, statesman, philosopher. . . . He must understand symbols and speak in words . . . he must study the present in the light of the past for the purposes of the future."

For a long time business analysts have been eager to devise suitable methods of forecasting. The techniques differ, but most of them can be reduced to one of three varieties. There are, first, the so-called business indicators or barometers, to which we referred on an earlier occasion. A

dependent variable, such as business activity and the like, is correlated with one or more independent variables—interest rates, security prices, gold holdings, etc.—with allowance for a time lag. The changing relationship between these series then serves as a sort of barometer of changes in business. Other analysts prefer methods of historical analogy based upon the study of the past. Still others determine first a trend, i.e., the general direction and rate of change in the long run. The trend is then projected into the future, and anticipated cyclical movements, resembling those observed in the past, are imposed on it.

Most of the forecasts with which we are concerned in the present chapter follow a standard pattern. Their goal is perhaps not so much the prediction of gross national product and its components, but an estimate of the volume of unemployment or of the forces of inflation for some future time, or, still more modestly, an estimate of national income or product at which full employment would prevail and which could therefore serve as target for public policy. For estimates of this type the following steps are in order: First, the potential labor force available at the time under consideration is estimated. Subsequently, projections are made of the expenditures incurred by the various sectors of the economy—consumers, business firms, foreigners, and government—which, if added up, yield gross national expenditure or product. The labor force required to turn out this product is then compared with the potential labor force available in the future.

In this or in a similar manner a projection of the 1970 level of gross national expenditure may be attempted.[4] The various steps involved in these procedures are now set forth in greater detail.

The Labor Force. The 1960 total labor force, including the unemployed and those in military service, is approximately 72 million. To arrive at a total labor force for 1970, the normal net increase resulting from population growth must be added.

Estimates assuming the continuation of present trends in mortality and immigration would yield a labor force of 86 million in 1970. In conformity with prevailing trends towards extended years of education, the employment of women, and slightly earlier retirement, the estimate reflects a small decline in the participation of young people and older men and an increase in that of middle-aged women.

Not all members of the estimated 1970 labor force will be available for civilian employment. Assuming a size of the armed forces amounting to 2.3 million persons, a corresponding number must be subtracted from the total labor force to yield an estimated 1970 civilian labor force of approximately 84 million. Under conditions close to full employment, perhaps 3½ per cent of the civilian labor force would be unemployed, including those on the

[4] The exposition is based on *Long-Range Projections for Economic Growth: The American Economy in 1970*, Planning Pamphlet No. 107 (Washington, D.C.: National Planning Association, 1959).

move from one job to another—the so-called frictionally unemployed. The employed civilian labor force projected for 1970 would then be 81 million persons.

Gross National Product. To arrive at the 1970 gross national product under conditions close to full employment, all that might seem necessary is the division of the current gross national product by the currently employed civilian labor force and the mutliplication of the quotient by the projected employed civilian labor force of 1970. Matters are not quite that simple, however, because of prevailing trends in working hours and productivity. The long-term trend of working hours is downward. The average workweek in manufacturing was 44 hours in 1929; in 1960 it was approximately 40 hours. In the meantime, however, it had been as low as 34 hours (in 1934, when unemployment was widespread and work was "shared") and as high as 45 hours (in the wartime emergency of 1944). The trend, thus, is interrupted by the conditions of business that call for longer or shorter hours at a given time. It may not be unreasonable, however, to project a working week of 37.5 hours for 1970.

Productivity, as measured by output per man-hour, moves upward over long periods of time, but its short-run behavior is not quite so certain when conditions are unsettled and shifts in production frequent and large. The average annual increase in productivity per man-hour has been over 2 per cent since 1889, and for certain periods it has been much higher. The rate shows great variations in the different sectors of the economy, being very high in agriculture and rather low in business, professional, and personal services. If adjustments are projected, they would point to a gross national product for 1970, under conditions close to full employment, approximating $800 billion (at 1960 prices).

Gross National Expenditure. The projected 1970 gross national product, close to $300 billion larger than that of 1960, is in the nature of a target. If it is reached, close to full employment will prevail; if not, there will be unemployment and depression. The determine whether it is likely to be reached, it now becomes necessary to project the 1970 gross national expenditure. This is perhaps the most crucial part of the whole procedure. The margin of error involved in the projection of gross national expenditure is still greater than that in projecting full-employment gross national product, because the former entails the separate calculation of the major components of gross national expenditure.

The expenditures of the various sectors of the economy may be divided into "basic" and "discretionary" ones. The basic expenditures are for the minimum purchases which in the light of prevailing trends can be expected to be made by each sector. On the assumption of continued stable growth they can be projected without excessive difficulties because the dynamics of an expanding economy are reflected in certain patterns of stimulation

and response. For example, if population increases by close to 25 per cent between 1960 and 1970, the increase in consumer expenditures and private residential construction will take place in a similar proportion.

The increase in the production of these goods will, in turn, require a rise in expenditures for the expansion, maintenance, and replacement of the stock of capital. And to take care of the needs of a growing economy, government expenditures will increase, just as they have in the past, regardless of the party in power.

Over and above the basic expenditures there are discretionary ones in the sense that they are incurred not so much as a quasi-automatic response to expansion but as a result of private and public decisions, preferences, and policies. Policies relating to taxes, wages, and defense are cases in point. For these discretionary expenditures alternative projections may be made, based on a variety of resonable assumptions.

With a great deal of ingenuity, an attempt has been made by the staff of the National Planning Association to draw up alternative projections of 1970 gross national expenditure which reveal various possibilities for the attainment of a gross national product close to $800 billion. The basic expenditures are estimated at $706 billion, calling for the employment of 72 million people. Additions of the discretionary expenditures yield a range of 1970 projected gross national expenditure from $735 billion to $820 billion, reflecting a rate of growth between 3.7 and 4.4 per cent. The low would spell substantial unemployment, the high over-full employment.

Appraisal of Predictions. The example presented in the preceding pages indicates the many pitfalls and difficulties that beset the path of the forecaster. Indeed, so many assumptions about the future behavior of variables must be made that the range of error is truly enormous. Such factors as working hours, productivity, and size of the armed forces, all affecting the estimate, will easily submit to different interpretation by different forecasters. Their treatment in this way or another influences the estimated size of the full-employment gross national product. Gross national expenditure, on the other hand, depends on future tax policies, government spending, foreign requirements, and the decisions of businessmen—matters about whose future development reasonable people may well have different views.

It is understandable that in this situation some students of the matter have urged the abandonment of national income forecasts. Others, however, will refuse to go that far. They will insist that, as a guide to policy formulation, prediction is indispensable, in spite of its shortcomings. Only extremists, they hold, would refuse to recognize the need for predictions. Extremists on the conservative side place unwarranted confidence in the operations of the free market, which, they claim, would push expenditures up to the level of full employment. Extremists of the left are so much at-

tached to the notion of a permanently deficient demand that the concept of full-employment expenditure has for them no operational significance. He whose thought moves along in safe distance from the extremists of both persuasions will regard both these views as unsound. Rather than to rely on qualitative judgments which have failed so badly in the past, he will aim at improvement of the technique of prediction, which, after all, is still in the early stages of its development. To despair of the possibility of predicting over-all economic aggregates is to despair of economics, for "economics will never either have or merit any prestige until it can figure out results."[5]

SUMMARY

The various concepts of national income and product include personal income, national income, and gross national product. Personal income is equal to the receipts of the factors of production; national income equals personal income plus undistributed corporate profits minus transfer payments: it measures the earnings of the factors of production regardless of their distribution. Gross national product equals national income, or the earnings of the factors of production, plus business taxes and depreciation allowances; it is a measure of the current output of goods and services at market prices. Gross national product is equal to gross national expenditure, the aggregate disbursements of consumers, business, and the government. For the nation as a whole, expenditures are equal to receipts: everybody's receipt is somebody else's expenditure.

The various aggregates can conveniently be arranged in a national economic budget which lists receipts and expenditures of consumers, business, and the government, supplemented by net exports. A country's economic growth can be measured by computing the average annual rate of change of its gross national product, adjusted for price changes.

The measurement of the various aggregates has stimulated attempts at predicting their future course. A number of forecasts have been made designed to estimate the volume of unemployment or the forces of inflation. The operations required for such calculations are difficult and entail a number of doubtful assumptions. They generally follow this pattern: The labor force that would be employed under conditions of full employment at some future date is estimated. Then the gross national product that would be produced by a full-employment labor force is ascertained. This gross national product can be realized only if there is an equal amount of gross national expenditure. If gross national expenditure falls short of the full-employment gross national product, there will be unemployment; if it exceeds it, the outcome spells inflation.

[5] Joseph A. Schumpeter, "Alfred Marshall's Principles: A Semi-Centennial Appraisal," *American Economic Review*, Vol. XXXI, No. 2 (June, 1941), p. 247.

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STUDY QUESTIONS

1. What are all the various national-income concepts designed to measure?
2. What is the name of the private agency which pioneered in the estimation of the national income?
3. Why are capital gains not included in the national income?
4. Why is the interest on the federal debt not included in the national income?
5. Why is the money value of the housewives' work not included in the national income?
6. Why is income in kind included in the national income?
7. Derive the various national-income concepts from personal income.
8. Derive gross national expenditure.
9. What is the treatment of transfer payments in national-income accounting?
10. Can consumption expenditure exceed disposable income? How?
11. Can personal income exceed national income?

12. What is the element of double counting in gross national product or expenditure?
13. What are some shortcomings of national-income estimates?
14. What is the purpose of national-income estimates?
15. Why does the national income of underdeveloped countries tend to be underestimated?
16. What is meant by economic growth?
17. How is economic growth calculated?
18. Why do different estimators arrive at different rates of economic growth?
19. How are economic forecasts classified?
20. How would you go about preparing a projection of gross national product for a five-year period?

III. *THE QUEST FOR ECONOMIC SECURITY*

Chapter 6 THE CONSUMER AND THE ECONOMIC ORDER

From the point of view of the over-all performance of the economy, the variability of consumer expenditure may be considered the most important consumption problem. Aggregate consumer expenditure may be too small or too large, reflecting unemployment in the one and inflation in the other case. If it is possible to vary consumer expenditure, these threats to our economic security may be avoided. But can we vary consumer expenditure? To resolve this question, we must examine the forces which determine aggregate consumer spending.

In a democratic society, consumers appear, on the whole, free to determine the size and distribution of their expenditure. Some individuals may want to spend more than their income; others, the whole of it; and still others, less. Some will prefer poetry, and others, pushpin. The variety of individual behavior, irregular and manifold as it may seem, follows, however, a certain pattern which can be discerned if individuals are studied in the mass and on the average.

In modern economic analysis, aggregate consumer spending usually is interpreted as a more or less passive element whose size reflects the behavior of other variables and which will change when these change, though not necessarily at the same rate. The consumers' wealth, or their assets—and especially their liquid assets, which are readily available for spending—are one of the variables that affect consumer expenditure. Another such variable is the availability of consumer credit, an important factor in our economy, where two thirds of all automobiles and one third of other consumer durable goods are purchased on credit. Again, another factor affecting consumer expenditure is disposable income, its size as well as its distribution. Relevant in this

connection is not only the courrent income but also the past and the expected future income. Indeed the relationship between income and consumption has been so much emphasized in the recent discussion of these matters that the other factors have not always been given adequate attention. While the relationship between income and consumption is a fairly well established one that has been explored from many angles, much work still remains to be done to expand the frontiers of knowledge in the direction of the impact of assets and consumer credit on consumer spending.

Consumer expenditure is an aggregate that includes a great variety of different consumer purchases—of automobiles, food, clothing, household equipment, various services, etc. The behavior pattern of all these different types of consumption expenditures is not always the same. A change in income, for example, may have relatively little effect on expenditures for food, while affecting in a much more pronounced fashion the expenditures for automobiles. It is often important to keep apart different types of consumption expenditure. The distinction between expenditures for durable and for nondurable consumer goods is of especial significance in this connection.

In the chapter which follows the operations of all these factors will be revealed in greater detail. The discussion centers around the relationship between income and consumption, matters that have been touched upon before and that will be studied again in Chapter 9. As has been seen, the level of income, broadly speaking, is determined by the rate of investment and determines, in turn, the rate of consumption. Though the expenditures of consumers are larger than those of business or government, they are less autonomous than these. They are generated by the economic system itself, more specifically, by the level of incomes.

CONSUMER INCOME AND EXPENDITURE

The Consumption Function, or Propensity to Consume. When income changes, there is generally a change of consumption in the same direction. This relationship is visible when we study the consumption expenditures of families in different income groups at a given time. It is also visible when we compare aggregate consumption expenditures at changing levels of national income over time. Both relations are in technical language referred to as the consumption function, or propensity to consume. The former may be designated as the family, or individual consumption function; the latter, as national consumption function.

If we concentrate our attention on the national consumption function first, we must distinguish its long-run and short-run behavior. In the long run, there is a striking degree of equality of the rates at which income and consumption tend to advance. This means that over long periods of time, consumption has absorbed a proportion of income that remained more or

less constant. More or less: it may be that in the most advanced societies, consumption is now a somewhat larger part of income than was true in the past, when income was lower and capital not yet accumulated in plenty.

The relationship discussed in the preceding paragraph is illustrated in Figure 17, which shows the ratio of consumption expenditures to disposable income for a period close to fifty years. From 1909 to 1929, and again after 1947, this ratio was a fairly stable one, an average of 94 per cent of disposable income being spent on consumer purchases. During the Great Depression, when there was a drastic fall in income, the percentage of consumer spending was abnormally high. During World War II, on the other hand, the reduced availability of certain goods combined with price control and rationing brought about a temporary decline of the percentage.

PERSONAL CONSUMPTION IN CONSTANT DOLLARS—RATIO TO DISPOSABLE INCOME

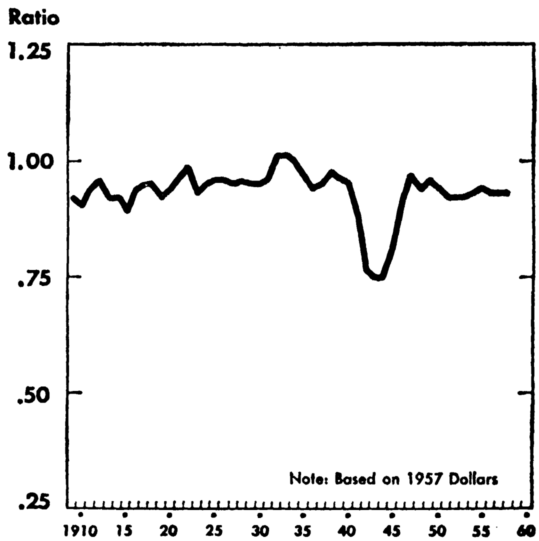

FIG. 17. During the early 1930's, when income was very low, consumption expenditure came close to disposable income and at times exceeded it. During World War II, special efforts were made to raise personal saving, and durable consumer goods of many types were not available. Hence the decline of consumption relative to income. Since 1947 an average of 94 per cent of the disposable income is spent on consumption. From Survey of Current Business, March, 1959, p. 19.

Long-period stability of the consumption function indicates that income devoted to investment increased proportionately with total income. In the short run, such increase in investment may fail to materialize. A depression is characterized by a fall of the national income and employment, a more than proportionate fall in investment, and a less than proportionate fall in consumption expenditures. Just as during the depression consumption ex-

penditures fall less rapidly than incomes, so they rise at a less rapid rate during the upswing of the business cycle. In the short period, say during the course of a business cycle, consumption thus changes at a slower rate than income; but over secular periods, it tends to move forward at about the same rate. The relative stability of consumption during a particularly severe depression may actually cause consumer expenditures to exceed the national income. During such a period, inventories are used up at a faster rate than they are replaced, and capital is consumed in other ways.

The cyclical behavior of consumer expenditures is illustrated in Figure 18, which shows the shifts in output during the three postwar recessions—the same recessions which have been commented upon on p. 66. In the 1949 recession, consumer expenditure failed to decline at all but rose slightly in the face of a severe drop in investment. In the 1953 recession it virtually stayed at the same level. In the 1958 recession it did decline, but at a much lower rate than investment. Again, during the recovery periods, consumer expenditures rose but investment rose at a faster rate.

Consumer purchases are thus an element of relative stability in times of recession or depression. Even if they move downward, they do so at a slower rate than total national income or gross national product. The downward movement again differs with respect to the various types of consumer goods. Some are more depression-proof, others less. Consumer services, such as professional or domestic services, repair work, etc. will decline little, if at all. Expenditures for these generally cannot be postponed easily. Similar considerations apply to the bulk of perishable consumer goods, especially foodstuffs. In the field of durable consumer goods, the decline is liable to be more pronounced. In bad times, purchases of items like motorboats, automobiles, refrigerators, radios, ranges, and vacuum cleaners will be affected most by restraint in consumer spending. In advanced societies the proportion which such types of commodities absorb of the total outlay of consumers is naturally greater than in backward communities. This is one of the reasons why depressions may assume particularly severe forms in highly industrialized countries.

Current consumption expenditures are functionally related not only to current incomes but also to the incomes of past periods. People are especially reluctant to revise their consumption standards downward, and a significant relationship is suggested between current consumption and the maximum income achieved previously.

The relative stability of consumption expenditure compared with changes in income is a feature chiefly limited to expenditures for nondurable goods. Fluctuations in purchases of durable goods are more pronounced than those of nondurable goods and more sensitive to changes in income. A number of reasons account for this difference. Expenditures for durable goods are more easily postponed than are expenditures for nondurables. We cannot well delay our purchases of food, but we can wait

CYCLICAL SHIFTS IN OUTPUT

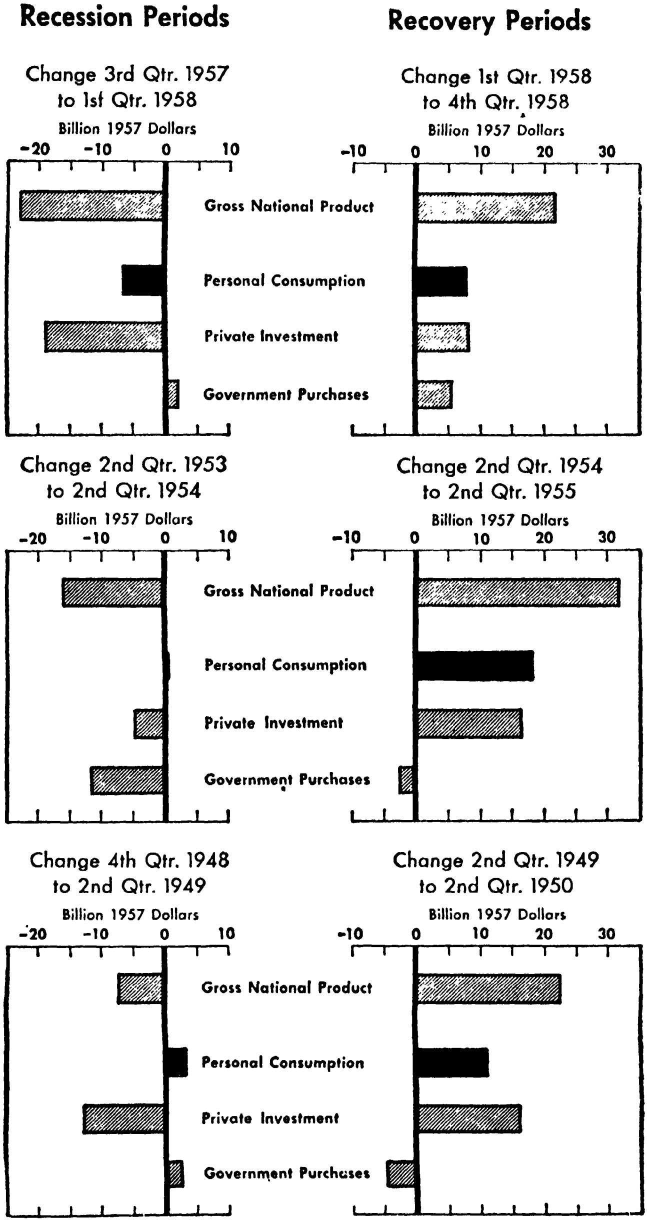

FIG. 18. Note the relative stability of consumption expenditures during business cycles. From *Survey of Current Business*, March, 1959, p. 18.

until next year before we buy the new automobile or the clothes dryer. This is so, not only because many nondurable goods may be characterized as necessities, but also because there is much flexibility in the replacement of durable goods. If we already own an automobile or a clothes dryer which is getting on in years, it usually is possible to extend its useful life for some length of time. Moreover, many nondurables are bought on a cash basis, whereas the bulk of durables is purchased on installment credit. When income is declining and the prospects seem unfavorable, consumers tend to be reluctant to go further into installment debt. When income is rising, this is often accompanied by a vigorous expansion of installment credit.

The relationship between income and consumption, especially the consumption of durables, thus is not as simple and mechanical as may seem to be the case at first glance. Furthermore the consumption function singles out income as the significant variable affecting consumption expenditure. There are other important variables that influence consumer behavior, for example, the consumers' holdings of wealth, especially of liquid assets. Liquid assets include deposits in checking and savings accounts, shares in savings and loan associations, and United States savings bonds. It has been observed that there is a tendency of consumption expenditures, especially of the lower income groups, to be larger when the amount of liquid assets held is a higher one. This statement again isolates a single factor, and it holds true only when other relevant factors are held constant. The median holding of liquid assets per consumer spending unit—that is, a group of family members living together and pooling their incomes—was estimated at from $200 to $500 in 1959. As will be seen, however, the distribution of these assets among the different income groups is highly uneven.

The Family Consumption Function. If we turn now to the family consumption function, we observe considerable variations of the percentages of income which different income groups spend for purposes of current consumption. On the lowest income levels the percentage is in excess of one hundred, indicating that current income is supplemented by loans and capital dissipation as sources of consumption expenditure. On the highest level, not much more than two thirds of current income is disbursed for consumption. The relationship is brought out in Table 5, which presents estimates for urban families for 1950.

Estimates such as the one presented here usually are derived from studies of relatively small samples, and the detail is subject to a large margin of error. The basic pattern, however, has been confirmed by numerous investigators.

The Average and Marginal Propensities to Consume and to Save. Schedules like those presented in the preceding table indicate what, in technical language, is referred to as average propensity to consume, i.e., the percentage of income which is consumed by individuals, groups, or the nation. The average propensity to consume is consumption expenditure

divided by income. The general conclusion can be drawn on the basis of the material under study that the average propensity to consume declines with increasing income: that is, as we observe increasing incomes, we find that consumption expenditures rise in terms of dollars but fall in percentage of income.

TABLE 5

CONSUMER EXPENDITURES IN PER CENT OF INCOME AFTER TAXES, BY INCOME LEVEL, URBAN FAMILIES, 1950*

Income Level, Dollars	*Per Cent of Income for Current Consumption*
Under 1,000	182
1,000–2,000	106
2,000–3,000	102
3,000–4,000	98
4,000–5,000	96
5,000–6,000	94
6,000–7,500	90
7,500–10,000	84
10,000 and over	69
All incomes	92

* Irwin Friend and Stanley Schor, "Who Saves?" *Review of Economics and Statistics*, Vol. XLI, No. 2 (May, 1959), Part 2, p. 232.

The marginal propensity to consume refers to the proportion of a marginal increment in income that is spent on consumption. It is additional consumption expenditure divided by an extra dollar of income. A marginal propensity to consume of 0 would mean that of a small increment to income, nothing is consumed; one of 1, that the whole increment is consumed. If the marginal propensity to consume is 0.7, seven tenths of the increment are consumed. A study of the United States consumption pattern over the period from 1922 to 1941 estimates the marginal propensity to consume as 0.672.[1] Estimates for periods subsequent to World War II are not materially different. For the period from 1947 to 1950, a value of 0.608 was found.[2]

The average and marginal propensities to consume are paralleled by the average and marginal propensities to save. Average propensity to save is personal saving divided by income; marginal propensity to save is an addition to personal saving divided by an extra dollar of income. The average propensity to save added to the average propensity to consume yields 1, or income. The marginal propensity to save added to the marginal propensity to consume likewise yields 1, or incremental income.

At a given level of income the marginal propensity to consume will be less than the average propensity to consume. This follows from the observa-

[1] Trygve Haavelmo, "Methods of Measuring the Marginal Propensity to Consume," *Journal of the American Statistical Association*, Vol. XLII (March, 1947), p. 119.

[2] Gene H. Fisher, "A Simple Econometric Model for the United States, 1947–1950," *Review of Economics and Statistics*, Vol. XXXIV, No. 1 (February, 1952) p. 48.

tion that the average propensity to consume falls as income rises. It is not so certain, however, whether the marginal propensity to consume falls with rising income in the same fashion in which this is true of the average propensity to consume. Over a substantial range of income brackets the marginal propensity to consume, while always less than the average propensity, may be constant or almost constant.

These characteristics of the propensity to consume are very important because they indicate that a redistribution of income is likely to have a relatively moderate effect on consumption; to illustrate, if the American consumers spent 93 per cent of their disposable incomes in 1959, they would have spent a smaller fraction of a small increment in income. If the poor spend 100 per cent of their income, they will spend a lesser proportion of an addition to it. The rich, on the other hand, who consume one third of their income, may consume only one fourth or one fifth at the margin. Besides this disproportion of marginal and average propensities, it also seems that differences between the marginal propensities of various income groups are smaller than the differences between the average propensities of these groups. If the average propensity of a rich man is 30 per cent, for example, his marginal propensity may be only 25 per cent. A poor man, however, may have an average propensity of 100 and a marginal one of 75 per cent. Under these conditions the transfer of one dollar from the rich to the poor will decrease consumption of the rich by 25 cents while increasing that of the poor by 75 cents. On balance, net consumption would only be increased by 50 cents, the difference of their marginal propensities, not by 70 cents, the difference of the average propensities. Under the same conditions the net stimulation of consumption by one dollar would require a transfer of two dollars from the rich to the poor.

Income Elasticity of Demand. The relationship between income and the demand for consumer goods can be elucidated also by means of the concept of income elasticity of demand. This notion is related to the familiar price elasticity of demand, which indicates the response of prospective purchasers of a commodity to changes in its price. The income elasticity of demand refers to the response of prospective purchasers to changes in their income. More exactly the income elasticity of demand for a commodity is the ratio of the percentage increase in consumption of this commodity to the percentage increase in income, other things being equal. Observations in the United States indicate that the income elasticity of demand for food is rather low, while that for clothing is higher, and that for the "home" (rent, furniture, and fuel) higher still. In a recent estimate the coefficient of the income elasticity of demand for cigarettes has been calculated at approximately 0.10, that is, when income, for example, goes up by 10 per cent, cigarette consumption goes up by 1 per cent.[3] For automobiles, the

[3] S. M. Sackrin, "Income Elasticity of Demand for Cigarettes: A Cross-Section Analysis," *Agricultural Economics Research*, Vol. IX, No. 1 (January, 1957), p. 6.

coefficients which have been calculated by various experts were found to be much higher, perhaps around 2.[4] Investigations of the income elasticity of demand are especially important for business concerns, which, in this way, can ascertain their potential markets at different income levels.

Distribution of Consumer Expenditure. The scientific study of the impact of income on the distribution of consumer expenditure originated in 1888 with a proposition generally referred to as Engel's law. Ernst Engel (1821–96), a statistician of that period, found statistical evidence for the statement that, as income rises, the proportion spent on the necessities of life diminishes. Since then this law has been elaborated and reformulated in great detail. How does it operate at the present time?

The distribution of an urban family's dollar of consumption expenditure among the various items is shown in Table 6. This gives percentages of the distribution of consumption expenditures for all income groups as well as by different income brackets. Food is still the largest item of consumption, absorbing 30 per cent of the total. At the turn of the century the percentage of food expenditures was over 40, and if we go farther back into the past, the percentage goes up to 50 and more. Its decline is an unfailing sign of economic progress, indicating the fact that we can afford to spend a larger and larger part of our dollar of consumption expenditures on items that do not represent as basic a necessity as does food.

If we study the share of expenditures for food among the different income classes, we find that among the groups with the very lowest incomes, up to $2,000, the share goes up. For the higher income groups the share of food in their consumer dollar declines steadily—people having an income ten times as much as other people cannot eat ten times as much.

On the average, people spend on alcoholic beverages more than on education and reading combined, and more than twice as much as on education alone. Expenditures for tobacco, roughly speaking, follow the same pattern as expenditures for food: they increase, percentagewise, over the very lowest income brackets, and decline as higher and higher levels of income are reached. This is a pattern that is established also for a number of other consumption items.

Expenditures for housing show a relative decline until the group with incomes just below of $10,000 is reached; for the top group they reach a higher percentage, indicating the significance of the home as a "status symbol." The reverse is true of expenditures for automobiles: their share is lower for the top group than for the income groups below, signaling the fact that, in the top group, automobiles have ceased to mean much as status symbols.

[4] See G. C. Chow, *Demand for Automobiles in the United States* (Amsterdam: North Holland Publishing Co., 1957), pp. 81, 92; Hans Brems, "The Outlook for the Automobile Industry," *Current Economic Comment*, Vol. XX, No. 4 (November, 1958), p. 33.

TABLE 6

CONSUMPTION EXPENDITURES OF ALL FAMILIES IN CITIES OF 2,500 AND OVER, BY INCOME CLASS, 1950*

Item	All Income Classes	Under $1,000	$1,000 and under $2,000	$2,000 and under $3,000	$3,000 and under $4,000	$4,000 and under $5,000	$5,000 and under $6,000	$6,000 and under $7,500	$7,500 and under $10,000	$10,000 and over
Number of families	10,791	284	982	1,962	2,807	2,058	1,191	793	425	289
Average family size	3.3	2.4	2.7	3.1	3.3	3.5	3.7	3.7	4.0	3.7
Average money income after personal taxes†	$4,224	$622	$1,556	$2,549	$3,492	$4,464	$5,449	$6,638	$8,432	$15,932
Per cent of expenditures for current consumption	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Food	29.7	32.6	35.9	33.5	31.4	29.2	28.2	27.2	26.8	22.5
Alcoholic beverages	1.6	.8	1.1	1.3	1.5	1.7	1.8	1.8	2.0	2.1
Tobacco	1.8	1.3	2.2	2.1	2.0	1.9	1.7	1.6	1.4	1.0
Housing	11.0	14.9	13.8	12.2	11.3	10.9	10.2	10.2	9.8	10.6
Fuel, light, and refrigeration	4.2	7.4	6.7	5.2	4.5	4.0	3.7	3.5	3.4	2.8
Household operation	4.6	4.8	4.2	4.1	4.0	4.1	4.5	4.6	5.4	9.0
Furnishings and equipment	7.0	5.6	5.4	6.8	6.7	7.5	7.3	7.2	6.4	8.4
Clothing	11.6	7.0	8.9	10.0	10.7	11.4	12.3	12.8	13.6	14.2
Automobile	11.9	7.1	6.3	9.0	11.7	12.8	13.7	13.9	13.6	10.8
Other transportation	1.7	1.2	1.8	1.8	1.6	1.6	1.7	1.7	2.0	1.8
Medical care	5.2	7.6	5.9	5.5	5.6	5.1	4.9	5.0	5.3	4.2
Personal care	2.2	2.0	2.4	2.4	2.3	2.2	2.2	2.1	2.1	1.9
Recreation	4.5	2.1	2.4	3.3	4.3	4.9	4.8	5.2	5.1	5.5
Reading	.9	1.0	1.0	1.0	.9	.9	.9	.9	.8	.8
Education	.6	.5	.2	.3	.4	.6	.7	.8	1.0	1.5
Miscellaneous	1.5	4.1	1.8	1.5	1.1	1.2	1.4	1.5	1.3	2.9

Note: Items may not add to totals because of rounding.

* U.S. Department of Labor, *How American Buying Habits Change* (Washington, D.C.: U.S. Government Printing Office, 1959), pp. 50 ff. Derived from Study of Consumer Expenditures, Incomes and Savings: Statistical Tables, Urban U.S.—1950 (University of Pennsylvania, 1957), Vol. XVIII, table 2.

† Taxes deducted were federal, state, and local income tax, poll tax, and personal property tax.

The share of expenditures for household operation first declines but then begins to rise rather steadily as higher income brackets are considered. As the brackets rise, help to run the household is increasingly felt a necessity, and such help is expensive—unless reliance is placed on the new servant class mentioned before on p. 38.

Among the higher-income brackets, relatively much more is spent on education than among the lower, seven to eight times as much among the top group than among the group with incomes from $1,000 to $2,000. Expenditures for education are instrumental in securing a high income and in assuring the next generation a high income.

As is to be expected, the share of expenditures for recreation becomes larger and larger with the income bracket. It costs many times as much to join a country club than to watch an occasional ball game.

There are, thus, considerable differences in consumption standards, and they become more pronounced the more we turn away from the fundamental necessities of life. However, standards are much more nearly equal than they were in the past, and more nearly equal than they are in many foreign countries. Economic growth and the relative prosperity which has been characteristic of the United States for twenty years, have done much to bring about a diffusion of consumer goods among all strata of society. The large majority own homes and cars, something nowhere else to be found. The principal differences do not relate so much to the possession of goods and to their quantity but to their quality.

Still another matter is the quality of the distribution of our expenditure. Does it make sense to spend as much on advertising as on research, as we have been doing? Have we not increased our private consumption of frills, flippancies, and trifles at the cost of starving public consumption? Some say that we cannot afford better schools and better health care, and must put up with polluted rivers and city blight. But can we afford not to afford them if we aim at the full realization of the national purpose of our great country? These are questions to which an increasing number of patriotic citizens seek answers. We shall consider them in the further course of our discussion.

Relationship between Consumption and Investment: the Multiplier. Thus far, our attention has been concentrated on the determination of consumption at a given level of income.[5] Let this income level now be changed because of a net increase in the rate of investment—an increase that is not offset by any decline in other expenditures. This implies creation of new money or activation of hitherto idle funds. The ensuing situation provides

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[5] A wealth of related, up-to-date material on consumer behavior may be found in the annual "Survey of Consumer Finances," periodically published in the *Federal Reserve Bulletin*. The Survey covers such matters as the economic outlook of consumers, their plans for purchasing durable goods and houses, and their financial position and commitments.

an opportunity to study the relations between investment and consumption. These are of special importance when the sum of investment and consumption is too small to absorb all employable resources, i.e., under conditions of unemployment. Under such conditions the additional investment of one dollar (or the additional employment of one worker to produce capital goods) will increase income by that dollar (or increase employment by one worker). But the consequences of the additional investment are not exhausted with this. There will be, also, an induced increase in consumer goods output (or in employment in consumer goods industries). This is so because the additional earnings of the people newly employed in capital goods production enable them to spend more money on consumer goods, and there is, thus, an induced expansion in the consumer goods field. The people newly employed in the consumer goods industries will, in turn, increase their own consumption and thus induce further expansion in the same direction. Each round of spending will, however, be smaller than the preceding one, because at each round some amount will be withheld and saved. The extent of the induced increase thus depends on the marginal propensity to consume. The larger this is, the greater is the induced expansion.

The national income thus increases by the amount of the initial injection plus the induced expansion. The injection, repeated in every consecutive period (that is, continually maintained at a given rate per unit of time), occurs in the investment sector; the induced expansion takes place in the consumption sector of the economy. To indicate the total increase in the national income, the initial injection must be multiplied by a certain factor. This factor, called multiplier, is the reciprocal of the marginal propensity to save, or

$$\frac{1}{\text{1 minus marginal propensity to consume}}.$$

The multiplier indicates the ratio of the total increase in income, production, or employment to the initial increase represented by new investment. If the marginal propensity to consume, for example, is 0.672, then the multiplier is 3.048, or approximately 3. A multiplier of this size implies that for every additional dollar invested each period, there is an eventual increase in consumption by two dollars per period. Stimulation of investment is thus a powerful lever of consumption.

The Principle of Acceleration. Increased consumption also exerts a favorable effect on investment. When consumption is stepped up, this lifts the rate at which capital is replaced and also that at which new capital is accumulated. The principle which underlies this relationship is called principle of acceleration. Both multiplier and principle of acceleration interact upon each other in the sense that the initial increments in investment or consumption, as the case may be, stimulate consumption or investment; and

these induced effects, in turn, stimulate investment or consumption, and so on.

The operation of the principle of acceleration may be visualized with the help of a simple arithmetic example. Assume that a business firm manufactures automobiles and that a certain piece of machinery is required for the production of every thousand automobiles per year. So long as there is no change in the output of automobiles, the firm's annual purchases of capital goods consist only of replacement of discarded machinery, such replacement becoming necessary if the firm operates at full capacity. Assume, further, that the firm's annual output has been 100,000 automobiles for some time and that this is raised to 120,000, or by 20 per cent, requiring 120 machines instead of 100. To the annual replacement demand of, say 10 machines, there is now added a net investment of 20 machines, accounting for an increase in gross investment from 10 to 30, or by 200 per cent. Thus, changes in output, amounting to 20 per cent, may be magnified in the form of changes in investment amounting to 200 per cent. Merely to maintain investment at the rate of 30 machines per year, the firm would have to continue to expand output by about 20,000 automobiles.

Changes in investment are accelerated not only by changes in the output of consumer goods but also by changes in the output of other goods whose production requires durable equipment—automobiles for business use, machinery produced with the help of other machinery, etc. The durability of investment goods is indeed the factor which is responsible for the accelerated effects of changes in consumption or in general output on investment.

As cyclical movements of economic activity coincide with fluctuations of investment, students of the business cycle have come to give increasing attention to the principle of acceleration. It is necessary, however, to be aware of important limitations of this principle. The relationship between investment and output is not a rigidly constant one. Technologies change, and so does the ratio of investment to output. It may be possible to raise the output without proportional additions to equipment. Moreover, when a firm operates at less than full capacity, it can increase its output by utilizing more intensively the existing equipment rather than by the purchase of new equipment. Important also is the tendency of business firms to purchase equipment in anticipation of an increase in the demand for output rather than concurrently with such an increase. All these factors must be taken into consideration in conjunction with the use of the principle of acceleration as a device for the explanation of business behavior.

THE CONSTRUCTION OF ECONOMETRIC MODELS

Having become acquainted with the marginal propensity to consume and with the principle of acceleration, we pause for a moment and resume

the discussion of economic prediction which occupied us in the preceding chapter. There the projection was made within the consistent framework of a system of national economic accounting. Another method of attempting prediction utilizes the tools of econometrics, the science which develops economic theory in mathematical terms and measures these with the aid of statistical procedures. Work in econometrics must not be confused with purely statistical fact finding, which is supposedly not inspired by preconceived theories. The fact-finding approach, especially to the business cycle, is characteristic of the monumental work of Wesley Clair Mitchell (1874–1948) and of that of the National Bureau of Economic Research in New York, a private research organization founded by Mitchell. The Brookings Institution in Washington, another private research organization in the field of economics, has also done outstanding work along fact-finding lines. A third research organization, Cowles Foundation for Research in Economics, formerly connected with the University of Chicago and now at Yale, has done much to promote the econometric approach.

Work in econometrics has led to the devising of economic "models" or theoretical constructions which explain the operations of the economic system through successive periods of time in the form of simultaneous equations. These equations reflect theories, that is, systematic and consistent general ideas concerning the various magnitudes that determine the working of the economic system. Although economic activity is generated by a multitude of individual transactions of households, business firms, labor unions, government organizations, and the like, the variables in the equations are aggregates. The direct treatment of individual transactions would make the number of equations much too large to allow their practical use. The aggregates are broad ones—income, consumption, investment, etc.—in the simple systems; whereas the more complicated systems contain larger numbers of equations composed of more finely split-up variables—income from labor and from property; consumption of durables, nondurables, and services; construction and producers' durable equipment; and so forth. The system is complete in the mathematical sense; that is, there are as many equations as unknown variables whose behavior the system aims to explain. As the variables relate to different periods of time, the models are examples of dynamic economics, which treats of change and growth.

Some of the variables in the equations are exogenous; that is, they operate from the outside of the economic system and are considered as "given" by the analyst. Others are endogenous, or arising from the operation of the economic system itself. Government expenditure is an example of an exogenous variable, while consumption expenditure is one of an endogenous variable.

After the equations have been set up in conformity with the economic theory that has served as inspiration, they are fitted to the statistical data, which reflect the observed behavior of the variables, in order to calculate

the numerical values of the constants or parameters. Subsequently the results of the model are tested, that is, compared with actually observed data.

It may help matters at this stage if we introduce a very simple econometric model.[6] This model, which has actually been fitted to United States data for 1947 to 1950, is as follows:

$$1.\ C_t = aY_{t-1}$$
$$2.\ I_t = b(C_t - C_{t-1})$$
$$3.\ Y_t = G_t + C_t + I_t$$

The a and the b in these equations are the parameters or constants for which numerical values have to be determined. a is the marginal propensity to consume; b, the accelerator coefficient which indicates the investment that results from an increase in consumption. The capital letters stand for the variables. All of these are corrected for price changes; that is, they are expressed in terms of dollars of constant purchasing power. The subscripts denote the time period of the variable.

1. The variables in the first equation are consumption expenditures (C) of a period t and income (Y) of the preceding period. The equation states that consumption in the current period varies with income in the recent past; in other words, it is the consumption function. The coefficient a indicates the change in consumption attending an incremental change in income.

2. In the second equation, investment (I) of a period t is shown as dependent upon the difference between consumption of that period and consumption of the preceding period. The coefficicient b indicates the increase in investment induced by an increase in consumption of $1.

3. The third equation is an identity, stating that income (Y) equals government expenditure plus foreign investment (G) plus consumption (C) plus investment (I). In this pattern, G is considered an exogenous variable, that is, one determined by forces outside the economic system and not explained by the model. The other three variables are endogenous, that is, determined by the operations of the economic system itself.

Having these equations before him the econometrician will next look up the observed values of the variables and with their help calculate the numerical values of the constants a and b. The way this is done is a matter of detailed mathematical and statistical technique which does not elucidate the general principles of model building. For the model studied here, a marginal propensity to consume of 0.6 and an accelerator coefficient of 0.5 are the results of the calculation.

What is most important is the question of the predictive power of the model. If the statistical test of the model in the light of empirical data is successful—that is, if the calculated values of I, C, and Y agree fairly well

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[6] The model is taken with permission from Gene H. Fisher, *op. cit.*, pp. 46–48. The presentation of the whole matter in this book owes much to Robert A. Gordon, *Business Fluctuations* (New York: Harper & Bros., 1952), pp. 351 ff.

with observed values—does this mean that the theory embodied in the model is the correct one? If it is considered the correct one, does this mean that the theory, the model, and the calculated parameters or constants will provide a meaningful explanation not only of the economy during the time periods for which the variables were taken but also of the future behavior of the economy? Turning to the first question, we must be aware that the agreement of the calculated and of the observed values does not necessarily mean that the observed behavior of the economy was necessarily the outcome of the operation of the variable factors studied in the equations. It may just as well have been caused by the operation of variables not considered in the equations. The problem is not unlike that of the significance which can be attached to the results of statistical correlation. If the coefficient of correlation between the marriage rate and the volume of residential construction should prove to be a high one, this does not necessarily mean that increased house building has caused the marriage rate to go up, or vice versa. Many other factors may be responsible either for the increase in the marriage rate or for the increased building activity. Hence, if the interpretive power of the model suffers from limitations of this type, this will be true still more of its predictive power.

Models, after all, are strictly mechanical devices. They do not reflect adequately the changing significance of the variables included in the equations during the changing conditions of the time. Income may be a fairly important determinant of consumption at one time; at another time, liquid asset holdings of the consumers may be equally or more important; at again another time, there may be restrictions on consumer installment credit; at still another time, fears of anticipated wartime restrictions on consumption may raise the propensity to consume.

Econometricians know well, however, that a system of equations, even one with the most exhaustive list of variables, can never include all relevant influences. They aim to take account of this by allowing for random checks and errors. The inclusion of these into the equations is characteristic of the "stochastic" models, which are treated with the help of "statistical inference" and the theory of probability. All this accounts for the great complexity of work in econometrics. It is a field of knowledge that is still in its infancy. Inherent shortcomings of the method should not be allowed to stand in the way of further research and development. Although some students of the matter have lost hope in econometrics, others expect that this expansion of the frontiers of knowledge will in time bring its own reward. This reward will consist of the superior basis which adequate models can provide for policies of economic stabilization.

SUMMARY

The level of consumer expenditure is affected by such factors as consumers' holdings of liquid assets, consumer credit, and the size and

distribution of disposable income. The relationship between income and consumption is singled out for special attention. Over long periods of time, consumption expenditures have been a rather stable proportion of the national income. As the latter has risen, consumption has increased more or less at the same rate.

Among different income groups the proportion of income consumed falls off with the higher income level. This is true, however, to a greater extent of certain consumption expenditures, say, for food, than of others.

Changes in investment bring about changes of greater dimension in consumption expenditure. The ratio of the total change in income to the initial change in investment is known as the multiplier. Changes in consumption, in turn, may call forth magnified changes in investment in accordance with the principle of acceleration of derived demand.

With the help of the functional relationships examined in the chapter, it is possible to construct econometric models which explain the operations of the economy by means of a system of simultaneous equations. The results of the application of mechanical devices of this sort must be interpreted with caution, and their predictive power is narrowly limited.

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STUDY QUESTIONS

1. Why are there greater fluctuations of purchases of durable consumer goods than of nondurable ones?
2. In addition to income, what other variables may be significantly related to consumption expenditure?
3. Why is the marginal propensity to consume less than the average propensity at a given level of income?
4. What contribution to economics is connected with the name of Ernst Engel?
5. What is the behavior of consumption expenditures for automobiles at different income levels?
6. On what grounds would you be inclined to deny that the automobile serves as an important "status symbol" in the United States?
7. What is the relationship between the multiplier and the marginal propensity to consume?
8. How does the principle of acceleration operate?
9. What are some of the limitations of the practical relevance of the principle of acceleration?
10. What approach to the study of the business cycle is connected with the name of Wesley Clair Mitchell?
11. Who was the founder of the National Bureau of Economic Research?
12. What is econometrics?
13. Which research organization specializes in econometric studies?
14. What does dynamic economics treat of?
15. What are stochastic models?
16. What tends to fall most in a depression—income, consumption, or investment?
17. In what way does the distribution of income affect the level of consumption expenditure?
18. What is the difference between the short-run and long-run consumption function?
19. On the average, about how much of income is consumed?
20. In what way do liquid assets and consumer credit affect the level of consumption?

Chapter 7

POLICIES AFFECTING CONSUMPTION

While we may be unable to make exact predictions of consumer expenditure, we nevertheless have on hand an analytical framework which shows at work the forces that determine the level of consumption. Knowing the determinants of consumer expenditure, we can evaluate policies that affect consumption. Such policies may be designed to produce the characterized effect or may do this without intention. They may emanate from the government or from business. They may either tend to stimulate consumption or to discourage it, depending upon the specific nature of the problem they are to cope with.

STIMULATION OF CONSUMPTION THROUGH PUBLIC POLICIES

Policies designed to restrain consumption such as rationing, exhortations to save, and the like are of no current relevance, although in England, for example, wartime meat rationing was not terminated until 1954 and coal rationing not until 1958. Public policies designed to stimulate consumption may have a twofold purpose. They may either aim at the encouragement of consumption along specific lines considered socially desirable or at increasing the over-all level of consumption regardless of the goods affected thereby. Policies of the second variety are called for when consumption is deficient; i.e., when it, in conjunction with investment, fails to generate capacity operations of the economy. In such a situation, an increase in the rate of investment will, as has been seen, favorably affect consumption. Consumption may also be stimulated by public policies of taxation, wage determination, and social security, provided such policies favor those groups of the population whose propensity to consume is high. As has been noted the propensity to consume varies inversely with income. Hence,

policies which result in additions to the net receipts of low-income groups (after taxes) generally tend to stimulate the over-all rate of consumption.

While such policies generally will affect consumption in the desired direction, the student must be aware of important limitations. What matters in connection with these policies is the marginal propensity to consume, not the average propensity. The marginal propensity, however, tends to be lower than the average one.

This indicates that there are rather narrow limits to a policy of stimulating consumption via redistribution of incomes. The progressive income tax is generally considered the most effective implementation of such a policy. It extracts a larger proportion of high incomes than of lower ones and thus maintains a higher level of consumption than would prevail if tax revenues were levied in another form. But already before World War II, this tax was so progressive—that is, took so much larger a share of a rich man's income than of a poor man's income—that further increases in progressiveness would apparently have caused little change in the proportion of the tax extracted from income not designed for consumption.[1]

During the depression of the thirties, a great variety of measures to stimulate consumption were tried out; to the extent to which they were financed by other means than taxation, their expansionary effect was greater than would have been produced in the course of a redistribution of income. Work and home relief, the federal school lunch program, and the food stamp plan are examples of these measures. From the point of view of economic analysis the food stamp plan had many interesting features. Under this arrangement, there was in effect a system of dual prices for a number of so-called surplus commodities. For the purchase of such foods people of low means were given a federal subsidy in the form of stamps. These were accepted by the ordinary retail outlets in lieu of part of the purchase price. The aim of the plan was twofold. It was designed to raise farm income, while at the same time improving the dietary standards of low-income consumers. How would this come about? The increased demand would lift the price of the surplus commodity. The demand of the nonparticipating, higher-income consumers would be generally more inelastic than that of the indigent people who were to receive food stamps. If their demand was so inelastic that they maintained their purchases in spite of increased prices, all benefits of the plan would go to the farmers and none to the recipients of food stamps. If their demand was not inelastic enough to leave the volume of their purchases intact at the higher price level, the increase in prices and in farm income would be more moderate; and the low-income consumers would be the principal beneficiaries. In practice, both groups shared in the benefits: the poor consumed more food, and the farmers received higher incomes.

[1] Abram Bergson, "The Incidence of an Income Tax on Saving," *Quarterly Journal of Economics*, Vol. LVI (February, 1942), pp. 337-41.

Among current opportunities for improving consumption standards, housing, health, and education invite special attention. For a more complete discussion of the housing situation the reader is referred to Chapter 13, while in Chapter 12, plans for health insurance are evaluated. The principal cause of educational deficiencies is the great disparity in the financial ability of state and local governments. Plans for relief envisage federal subsidies which will place a uniform floor under per capita expenditures for primary, and perhaps also secondary, education throughout the nation. In the field of higher education the veterans program has resulted in a great advance toward more equal opportunities. By its very nature, however, it was limited in time. Following broadly the precedent set by the GI bill, the President's Commission on Higher Education has recommended a federal program of scholarships, awarded on the basis of need and ability. Nothing has come of this general program, although others, more limited in scope, have been adopted.

In the case of a severe recession, there is likely to be a revival of the idea of a federal bonus to World War II and other veterans. State bonuses were granted by many states during the forties. A federal bonus bill, providing pensions of \$90 a month to all veterans upon reaching 65, and of \$120 a month to specifically disabled veterans, was narrowly defeated in Congress.

ADVERTISING

It is thus mainly by means of the private policies of business concerns—advertising—that consumption is stimulated. Advertising expenditures, huge as they are, are rising at a rapid pace. In 1950 the total advertising bill was \$5.7 billion; in 1959 it was over \$11 billion (see Fig. 19). The share of newspapers in this bill, though still the largest, has been falling from 36 to 32 per cent during the 1950's, reflecting the increasing importance of other media, especially television, whose share rose from 3 per cent to 14 per cent.

Why have advertising expenditures increased so much? One important reason is the growth and diffusion of incomes, which makes available to consumers an ever rising amount of money that is left over after basic expenditures have been met (see Fig. 20). This "discretionary" spending will benefit those who advertise their wares most loudly and persistently.

Advertising is indeed a characteristic of a restless time, of a society which moves on and on to ever-increasing material progress. While some authorities are inclined to brand much of advertising as waste, there is little doubt that it has been a potent force in maintaining consumption as a relatively stable or increasing proportion of rising incomes. The upward movement of incomes requires, in the long run, an ever-increasing per capita outlay for consumption. Advertising helps to bring this about. It either instills the consumer with new desires or acquaints him with the possibilities for satisfying old ones. There are, of course, short-run periods when advertising, to the extent to which it serves this function, is not called for:

when consumer demand is so vigorous that it presses against the limits of available supplies, advertising may add fuel to the fire of inflation. This, however, does not affect the soundness of the institution in the longer run.

ADVERTISING EXPENDITURES, 1950–59

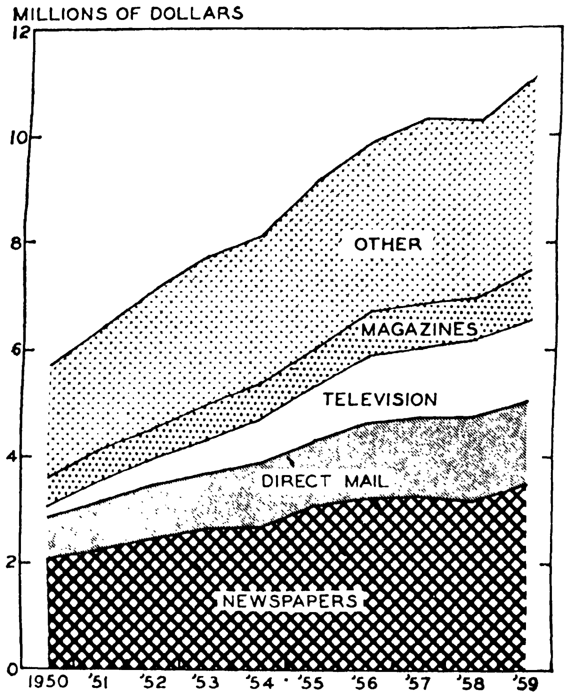

FIG. 19. Note that our expenditures for advertising are about of the same magnitude as our expenditures for research and development (above, p. 51). Source: McCann-Erickson, Inc., *Printers' Ink*. From *Illinois Business Review*, March, 1960, p. 9.

From another point of view, advertising may seem less desirable. Advertising is a symptom of, and at the same time a means to attain, positions of monopoly power, which, weak as they may be in the face of close substitutes, distort the allocation of productive resources and the distribution of income. Through advertising the product assumes unique characteristics in the buyer's mind; it becomes differentiated from others, and the seller is placed in the position where, by controlling supply, he can modify the price. Often, however, advertising will widen the seller's scale of production, and there is a chance that the price may be lower than it would be without advertising. The impact of advertising outlay on price and output is an intricate part of value theory which cannot be discussed here in any greater detail.[2]

[2] See Edward Chamberlain, *The Theory of Monopolistic Competition* (7th ed.; Cambridge: Harvard University Press, 1956), chaps. vi–vii.

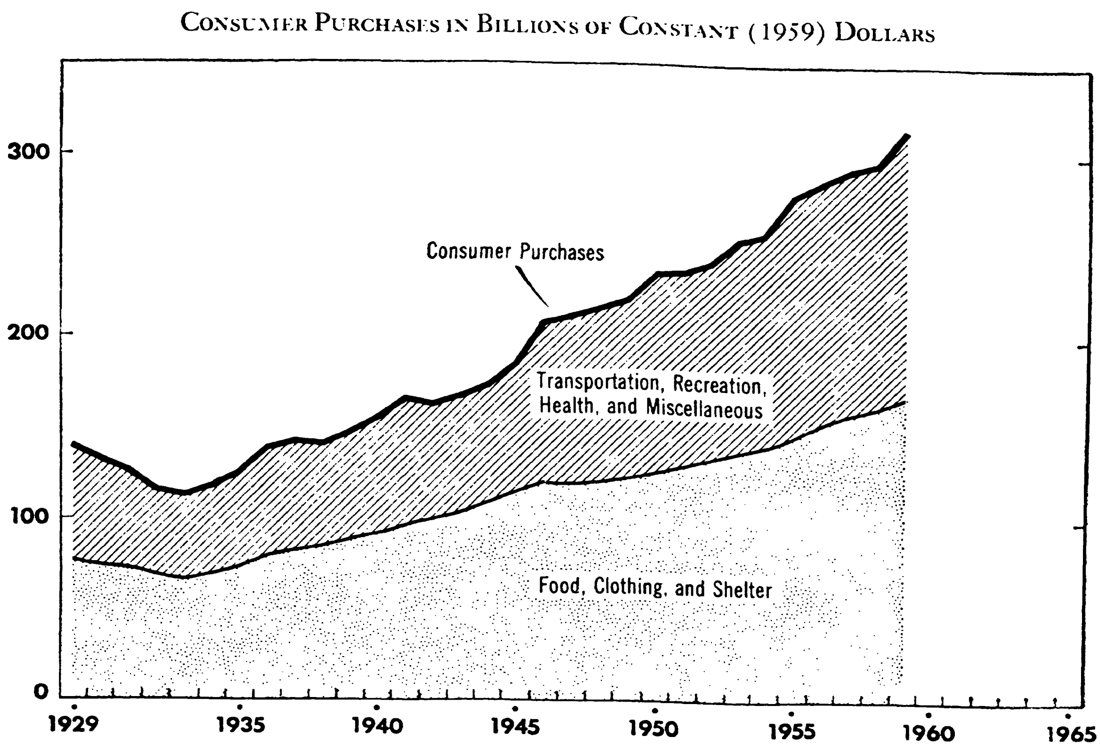

FIG. 20. An increasing proportion of consumer purchases is of the "discretionary" variety, that is, above the basic expenditures for food, clothing, and shelter. It is especially in connection with discretionary expeditures that advertising finds increasing scope. From *Survey of Current Business*, July, 1960, p. 5.

Advertising has, of course, its critics. They insist that much of it is wasteful, and some harmful. They point to its effects on our popular culture, and insist that it has distorted our system of values. For example, the critics will tell us that every year evidence accumulates that smoking is not exactly the best means to improve one's health. But, they say, every year the per capita consumption of cigarettes increases, and we spend almost as much on tobacco products as on doctors' and dentists' bills. They report that the drug industry spends more on advertising in a year than on research, and enough to build fifty hospitals.[3]

Furthermore, the critics say, advertising has left its mark on our popular culture. The programs of television, a very important mass medium, are controlled by a few networks, and these, in turn, cater to the advertisers who foot the bill—although, of course, the consumers of the advertised products pay for it in the end. The critics insist that the vulgarity and violence that is characteristic of so much of our television fare has led to a worsening of the popular taste and that it has given strength to the trend to imagery, which is so dangerous to rational thought, the basis of our democracy. The critics hold that television, if liberated from the advertisers, could make a great contribution to our cultural life, and they refer to former President Hoover, who in 1926 considered it "inconceivable that we should allow so great a possibility for service . . . to be drowned in advertising matter."

Those who are critical of advertising make much of the distorted system of values which it is apt to create in the consumers' minds. The consumer is drawn to the advertised products but negelects the consumption of other products for which no similar pressure has been built up. This latter type of goods as a rule is not provided by private business concerns operating in response to economic incentives. Owing to their nature, these goods are customarily supplied either by private nonprofit organizations or by the local, state, or federal government. Neither in quality nor in quantity, the critics hold, has this public consumption been kept up at standards which have become common in the field of private consumption. They argue that the relentless pressure of advertising is responsible for an abundant flow of resources into private consumption, while at the same time expenditures for public consumption—education, health, urban renewal, housing and welfare of low-income groups, control of water and air pollution—are subject to strict economy.[4]

CONSUMER CREDIT

While advertising expenditures doubled during the 1950's, consumer

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[3] Antitrust and Monopoly Subcommittee of the Senate Committee on the Judiciary, *Hearings*, April 13, 1960.

[4] See J. K. Galbraith, *The Affluent Society* (Boston: Houghton Mifflin Co., 1958); also, Harry G. Johnson, "The Consumer and Madison Avenue," *Current Economic Comment*, Vol. XX, No. 3 (August, 1960), pp. 3-10.

credit increased two and one half times (see Fig. 21). Three fourths of the consumer credit is of the installment type. The rest consists of charge accounts, single-payment loans, and services obtained on credit. Almost two out of every three families in the $4,000 to $7,500 income bracket owe installments. The proportion declines among the upper- as well as the lower-income brackets: the former do not need installment credit as badly, and the latter do not obtain it as easily.

RETAIL SALES AND INSTALLMENT CREDIT

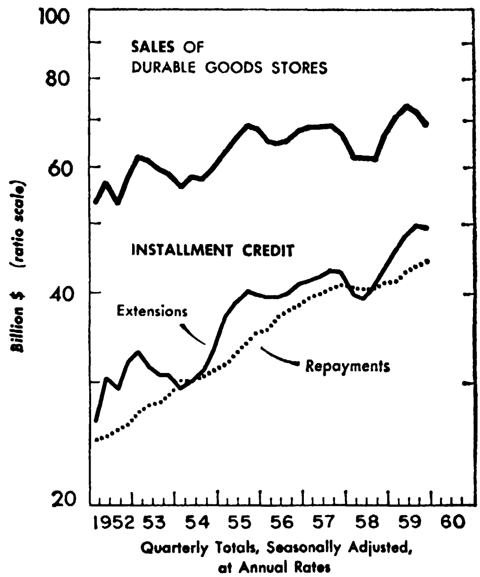

FIG. 21. The amount of installment cedit granted each year has increased at a much faster rate than annual sales of durable goods. From *Survey of Current Business*, February, 1960, p. 27.

Installment credit differs from commercial credit in important respects. It is granted in the expectation that a purchaser's income will suffice to meet payments for a period that may be as long as thirty-six months. It is secured by the seller's right to repossess the purchased article if default should occur. Although this does not sound much different from transactions involving, say, mortgage credit, the position of the lender is a much less secure one, because of the loss in value which durable consumer goods suffer as soon as they are no longer "new." As installment credit carries greater risk than other types of credit, its cost is correspondingly higher. But, and this again is a feature which installment credit does not share with other types of credit, installment credit has proved insensitive to changes in interest rates. Whether money is tight or plentiful, and the interest charge high or low, is a matter over which the typical installment buyer shows little concern.

With installment credit increasing at a considerably faster rate than personal income, the question has been raised whether its continued expansion constitutes a threat to the soundness of our economy. This question is denied by the majority of responsible students of the matter. They point out that the increase in debt does not mean that installment debt has grown relative to the incomes of indebted families. Rather it is held to indicate that a greater proportion of families in the middle-income brackets make use of this type of credit. Moreover, to some extent at least, the rise in installment debt parallels a shift in consumption from the purchase of services to that of physical assets. While in earlier years consumers purchased the services of such concerns as transportation enterprises, commercial laundries, theaters, services for which they paid as they went along, they now have acquired assets—automobiles, washers, dryers, television sets, etc.—for which again they pay as they go along, the latter payment merely replacing the former.

The postwar recessions, mild as they were, have not caused losses to lending institutions that would have affected their financial position. Whether the emergence of the credit card will so stimulate consumer credit as to turn it into a threat, only the future can tell. During World War II the monetary authorities were given the power to control installment purchases by requiring a minimum down payment and a maximum length of time for the payment of the debt. This power has now lapsed, but the Congress may revive it when such an action is called for.

The annual cost of consumer credit is approximately $5 billion, over $1 billion more than the nation spends on higher education and about the same as total government expenditures, on all levels, for health and sanitation. Individual borrowers rarely realize how high a charge they must pay for time purchases. Legislation was introduced in Congress in 1960 requiring lenders to inform consumer borrowers of the total finance charges and annual interest rates they have to pay. A similar law, passed by the State of New York in 1957, also requires that contracts be printed in 8-point type or larger, that is, at least as large as the print in the footnote on this page.[5]

PROTECTION OF THE CONSUMER

As an individual, the consumer is generally weaker than the trading organizations with which he transacts his business. To this he has reacted by forming co-operatives and other organizations. They will provide some measure of protection from fraud and exploitation. In selected fields where the public interest is at stake, such protection is given also by the government. These matters will now be considered.

Fundamental Weakness of the Consumer. The rise of interest groups

[5] On the general subject of consumer credit see Paul A. Samuelson, "It's Now Forty Pay-Later Billions," *New York Times Magazine*, August 28, 1960, pp. 13 ff.

has caused collective action to become an important element in our modern economic order. Labor is organized in trade-unions. In business, large-scale enterprise predominates, and there are a variety of organizations representing the interests of business groups. Only in agriculture is the basic production unit still identical with the basic consumption unit. Family farms continue to be the backbone of American agriculture. But powerful interest groups have arisen also in this field. They offset the weakness inherent in the atomistic character of the farm business.

In a world of collective action the interests of the individual consumer tend to be neglected. Often the terms at which he is permitted to trade are imposed upon him by the more powerful party, whose strength makes this possible without open conspiracies. But combinations to exploit the consumer are by no means unusual, and on occasions they consist of strange associations of business and labor groups.

In this situation, it is understandable that consumers, too, have tried to organize and engage in group action. There were many obstacles, especially the inertia of large masses of people, who react more readily when their interests as producers are affected. It is, by far, easier to organize relatively small producing groups than the vast number of consumers. As producers, most people specialize along narrow lines, and from these specialized activities they receive their incomes. Obviously, each, with respect to his own specialty, will tend to take a far greater interest in the producers' welfare than in that of the consumers. Nevertheless, the consumer movement was stimulated during the Great Depression when the public insisted more strongly on obtaining good value for scarce dollars. The consumer movement did much to promote what may be called "buymanship," a quality that for long was much less diligently cultivated than its counterpart, salesmanship.

One of the most impressive manifestations of the consumer movement is the growth of consumer co-operatives. In the United States, membership in retail co-operative societies, including urban and rural purchases, is over three and a half million. Apart from these, a variety of other organizations have sprung up. By drawing attention to violations of protective legislation and by insisting on its strict enforcement, they supplement the work of public agencies. Occasionally, they are instrumental in checking unwarranted price increases. They improve quality standards by submitting various consumer goods to tests, the results of which are announced in their publications. Consumer organizations also perform important functions as a counterpart to other lobbying groups that operate before federal and state legislatures. Many an important bill designed to protect consumers would not have passed without their effective pressure.[6]

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[6] On the work of the Consumers Union, the largest and most important consumer group, see Philip Sickman, "U.S. Business' Most Skeptical Customer," *Fortune*, September, 1960, pp. 157 ff.

Cost of Distribution. The reduction of distribution costs has been one of the principal aims motivating the activities of the consumer movement. The costs of distribution are indeed high; although important innovations in the retail field—such as the rise of the supermarket and of the discount house—are helpful in bringing them down. Less than one half of a dollar spent, for example, on food, is received by the farmer. The other half is received by various intermediaries—processors, storage and transportation enterprises, wholesalers, and retailers. According to calculations of the U. S. Department of Agriculture, the farmer's share of the food dollar for major commodity groups was as follows in 1958:

	Cents
Poultry and eggs	61
Meat products	56
Dairy products	45
Fruits and vegetables	29
Fats and oils	27
Bakery and cereal products	19

Only about one seventh of the retail price of cigarettes is received by the tobacco grower. In this case, of course, the remaining six sevenths represent not only the cost of processing and distributing but also a large amount of taxation.

It is often true that it costs more to distribute goods than to make them (see Fig. 22). While consumers may react unfavorably to this, it must not be forgotten that, on the whole, the phenomenon is characteristic of an advanced economic society operating at a high level of material well-being. Distribution adds utilities to the product. Goods must be transported to make them available to the consumer. Many are no longer sold in bulk, but in neatly wrapped packages. Consumers like to maintain the illusion of a great diversity of available goods. For this reason, packaging and advertising lend to many commodities individual characteristics of their own, which differentiate them from other goods. Sellers may have to provide comfortably appointed establishments, delivery service, premiums, exchange and return of goods, and similar amenities. If the consumer desires these, he must pay for them.

But the distribution system does not only cost money; it also provides employment. The number of people in trade, distribution, and finance is one half of those in manufacturing and two thirds or more of those in agriculture. The distribution system is instrumental in maintaining high levels of consumption: first, because the distributors are also consumers; and second, because much of the advance in per capita consumption, with the necessities being provided, must express itself in an improvement of the ways and means involved in the transfer of goods from manufacturer to consumer.

Supermarkets and similar establishments have done much to reduce the cost of distribution of food and other products to consumers. These con-

cerns often maintain a large number of stores, and the large volume of their sales enables them to make mass purchases at favorable prices. Buying usually is centralized, and often direct, thereby reducing the spread in prices at different levels of distribution. Some of the large food chains derive further advantages from the maintenance of integrated subsidiaries which process the products to be sold by the chain. "Self-service" in the large retail outlets also has helped to bring distribution costs down.

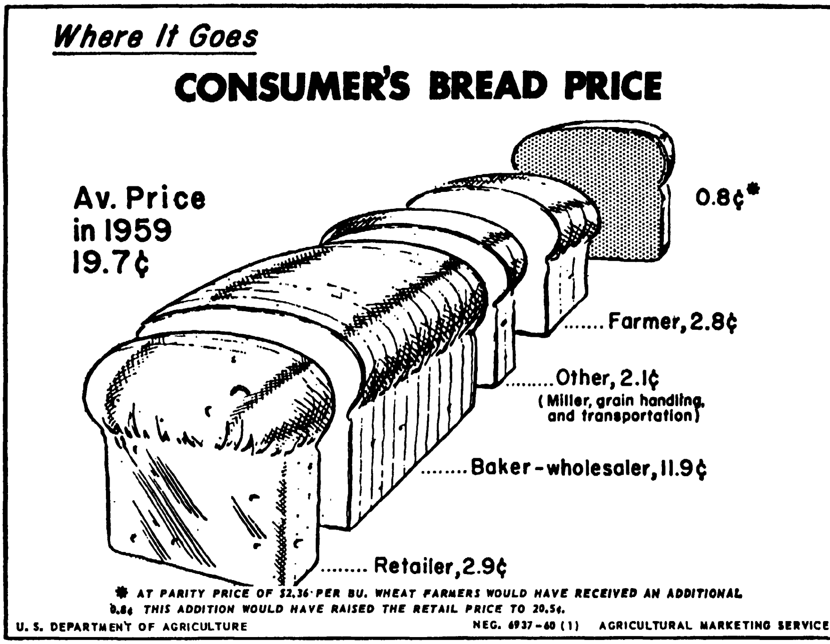

FIG. 22. From a 20-cent loaf of bread, the farmer receives no more than 3 cents. The rest goes to processors and distributors. From U.S. Department of Agriculture.

Protective Legislation. The principal legislative provision which protects the consumer against exploitation and misrepresentation is section 5 of the Federal Trade Commission Act of 1914 which outlaws "unfair methods of competition." This act is enforced by the Federal Trade Commission, a body whose activities will be more fully discussed in Chapter 15. The provision has been instrumental in checking cases of misrepresentation and deceit when this caused injury to competitors.

Prevention of injury to the consumer thus was only in the nature of an incidental objective. The consumer could be harmed with impunity as long as this did not cause damage to competitors. Moreover, an unfair "method" was required, that is, a chain of related acts. Under the Wheeler-Lea Amendment of 1938, these restrictions were dropped. It suffices now that

an "unfair or deceptive act" has been committed. The difference is of considerable importance. Before the amendment was enacted, a company could, for example, advertise a dangerous cure as a safe, effective, and dependable remedy; the law was not violated unless injury to a competitor was proved.[7]

If the Federal Trade Commission considers the law to be violated, it will make a formal complaint, and on concurrence of the guilty party, the case is closed. If the alleged violator fails to concur, a cease and desist order is issued, and on objection by the party concerned, hearings will be held by the Commission. If the order is upheld, the matter may be brought before the federal courts, and the ensuing litigation may go on for many years. It took 16 years, for example, until it was finally decided that Carter's Little Liver Pills do not affect the liver, and that the reference to this organ should be dropped.

In the field of advertising, the work of the Federal Trade Commission has been activated in recent years in response to the exposure, by congressional committees, of dubious practices committed by advertisers. In October, 1958, the Commission issued a nine-point guide designed to curb deceptive pricing practices. In December, 1959, it outlawed certain business practices as "bait" advertising: advertisers, to lure customers into a store, must not use misrepresentation or other deceptive devices. During the same month, the Commission called a conference designed to acquaint the public with its work and enlist its support in the struggle to raise advertising standards.

The Commission also has given attention to television commercials. It has charged deception in a case where a manufacturer showed a film, supposedly taken through a special kind of glass, but actually through an open window. In another film, a hurled object was thrown against an invisible guard, with an advertised toothpaste presumably giving similar protection to teeth. In other instances, shaving cream was used to give cakes a delectable icing, and in still others, glasses were soaped to show a fine head of beer. Another agency, the Federal Communications Commission, has licensing power over broadcasting stations, with renewal of the license required every three years, but it has never refused renewal on grounds of deceptive advertising.

Trading stamps, a merchandising device that has been in existence for many decades but which came into greater use in recent years, have also been brought under the scrutiny of the Federal Trade Commission. The Commission has ruled in 1957 that such stamps in themselves are not an unfair method of competition. Trading stamps are outlawed in the state of Wyoming and they have come under fire in a number of other states which

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[7] *Federal Trade Commission* v. *Raladam Company*, 283 U.S. 643 (1931).

impose heavy taxes upon them. A study of the Department of Agriculture,[8] made public in 1958, revealed that in stores with trading stamp programs food prices, over a certain period of time, had increased by 0.7 per cent, whereas prices in the nonstamp stores had risen only by 0.1 per cent during the same period. The average relative price increase in the stamp stores was thus 0.6 per cent greater than in the nonstamp stores. However, it was found that, on the average, consumers who save and redeem stamps can recoup the relative price difference because the value of the stamps is approximately 2 cents for each dollar spent in a stamp store. The cost of this, it was found, is covered in part by higher prices, in part by economies resulting from increased sales, and in part by a decline in profit per dollar of sales. The reader will note, however, that this study bases its findings only on the different rates at which prices increased in the two types of stores. It does not reveal anything about differences in the respective levels of prices or in the quality of the merchandise and service. To these matters, the consumer himself must pay attention.

In the field of soft goods, the consumer enjoys a measure of protection by the requirement that such goods be labeled as to the nature and content of the material. The labeling requirement is stated in federal legislation applicable to wool products since 1940, to furs since 1951, and to textiles since 1959. This legislation is enforced by the Federal Trade Commission.

In automobile retailing consumers have long complained about a variety of practices. As a rule they find that different concerns, although located in the same community, are likely to charge different prices for the same merchandise. Moreover, a given retail establishment is apt to vary the price, charging one customer more and another less, depending upon the "deal" he is able to make. A federal law, passed in 1958, aims at more orderly marketing of automobiles by requiring that all new cars carry price tags indicating the manufacturer's suggested retail price, the price of each item of optional equipment, and the transportation charge to the dealer.

Consumer protection is especially developed in fields where lack of vigilance would create health hazards. As early as in 1848, a federal law was passed prohibiting the importation of adulterated drugs. It took, however, a much greater effort to have Congress adopt legislation that would affect domestic interests. Not until 1906 were Pure Food and Drugs and Meat Inspection Acts approved. The introduction of still more effective legislationed required again more than 25 years, and another five years had to pass before the two bills which finally were drafted were accepted. These bills are the Federal Food, Drug, and Cosmetic Act and the Wheeler-Lea

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[8] U.S. Department of Agriculture, *Trading Stamps and Their Impact on Food Prices*, Marketing Research Report No. 295 (Washington, D.C.: U.S. Government Printing Office, 1958), p. 28. On the general subject of trading stamps, see also Richard Hammer, "Will Trading Stamps Stick?" *Fortune*, August, 1960, pp. 116 ff.

Amendment to the Federal Trade Commission Act, mentioned before, both of 1938. These bills were passed in spite of a vigorous campaign of the press, which had been intimidated by advertisers and was fearful of revenue losses. These obstacles were overcome largely on account of the support given to the bills by the large women's and consumers' organizations.

The Federal Food, Drug, and Cosmetic Act provides special protection against adulterated and misbranded products, if they are shipped across state lines. In accordance with the law, standards of identity, quality, and fill of container have been established for a great variety of products. For example, noodles with chicken must not be labeled "Chicken with Noodles," and containers must not be larger than their fill requires. Margarine may be colored, but if it is served in restaurants, it must be on labeled or triangular-shaped dishes. For some products, certain formulas have been established, and if these are not met, the label must indicate it.[9]

Though the bill had originally envisaged grade labeling of foods, this was eliminated in its final form. Grading has, however, been made mandatory for a number of agricultural staples by other statutes; and for others, voluntary systems of grading have been established. Generally, this applies only to staple products, not to highly processed commodities. Grading is under the jurisdiction of the Department of Agriculture, and so was the enforcement of the Food, Drug, and Cosmetic Act until 1940. Since then the Food and Drug Administration has been transferred and is now in the Department of Health, Education, and Welfare. The Department of Agriculture, so many observers believed, was not detached enough from the influence of producer interests to recognize consumer protection as the foremost objective. However, it is questionable whether the personnel of the agency has always been able to detach itself from the influence of the drug industry so as to avoid conflicts of interests. A former medical director accused it of acting as a "service bureau" for the drug industry and of having failed to protect the consumer from new, inadequately tested drugs.[10] It was also revealed that the director of the agency's antibiotics division had earned over $287,000 in eight years from outside activities in the field of antibiotics publications.[11]

Changes in the American pattern of living were responsible for new problems which faced the Food and Drug Administration in its work of protecting the consumer from unwholesome foods. As urbanization progressed, the distance over which food had to travel from the producer to the consumer increased, and so did the time interval between production and consumption. Moreover, recent decades have seen the rise of frozen foods and of other more highly processed and prepared foods which lighten the housewife's task. Hand in hand with this development, and necessitated by

[9] "Consumer's Champions," *Economist*, February 13, 1960, p. 624.
[10] Senate Antitrust and Monopoly Subcommittee, *Hearings*, June 2, 1960.
[11] *Ibid.*, May 18, 1960.

it, there occurred a huge increase in the use of so-called food additives, that is, of chemicals to preserve the food, to give it color, flavor, moisture, to thicken it, to dry it out, or to affect it in other ways. Doubts arose about the harmless character of some of the 700 chemical compounds which are so utilized. Apprehension was also created by the widespread use of insecticides and other pesticides, which were found to have unintended effects—a Wisconsin congressman, for example, who sprayed a lake with DDT to eradicate mosquitos which disturbed him while fishing, revealed that his fish had been poisoned after they had eaten the dead insects. His testimony set in motion congressional work aiming at strengthening the Food and Drug Administration in the face of the new developments in chemistry. After four years, in 1954, the Food, Drug and Cosmetic Act was amended to raise standards of protection against pesticides and insecticides, and in 1958 related action was taken with respect to food additives. In the main, these amendments brought about a shift of the burden of proof as to the character, harmful or not, of the chemicals. Until they had been passed, the Food and Drug Administration had to produce evidence of the harmful character of a substance before it could outlaw its use. Now the manufacturer must prove that his product is safe as a condition of its lawful use. Much more testing work is thus required before a chemical compound is allowed to enter into our food.

The Wheeler-Lea Amendment to the Federal Trade Commission Act, the companion bill to the Food, Drug and Cosmetic Act of 1938, brands expressly as unlawful the false advertising of food, drugs, medical devices, and cosmetics. Enforcement is in the hands of the Federal Trade Commission, a quasi-judicial tribunal, which, after an elaborate procedure, issues a cease-and-desist order unless the alleged violator undertakes voluntarily and without formal trial to discontinue the improper method of advertising. These are the ordinary enforcement methods of the Commission. In food, drug, or cosmetics cases, they are supplemented by injunctions and criminal prosecutions.

Federal legislation does not grant the consumer adequate protection against activities that occur within the limits of a single state. A number of states, however, have passed protective laws of their own, with the state of North Dakota leading. Municipal legislation is also of help. More than 700 cities, for example, have passed uniform milk ordinances, drafted after a model set up by the United States Public Health Service.

Antichain Store and Fair Trade Legislation. A number of laws, which were enacted during the depression period of the 1930's, disregard the interests of the consumers and place special protection on small businesses. The Miller-Tydings Act of 1937, to be discussed in the pages which follow, makes it possible to prevent chain stores and other retail establishments from cutting their selling prices. Other legislation limits the advantages which chain stores and similar firms may obtain when purchasing commodities in

large quantities.[12] Legislation of this type reflects the situation during the depression period of the thirties when principal emphasis was placed on the capacity of small business to provide employment. The legislator then had to choose between two sorts of waste, that resulting from unemployment of resources and another one resulting from a relatively inefficient allocation of resources. The idea of consumer protection would, at first glance, have promoted a policy enabling the most efficient enterprises to buy and sell as cheaply as possible. But such a policy might, in the end, reduce consumer purchasing power by eliminating employment opportunities, which, at the time, were extraordinarily scarce. Legislation was thus passed to keep the less efficient producer in business. It is questionable, however, whether legislation of this type ought to be kept on the statute book during periods of full employment, when the scarcity of resources calls for optimum allocation. The principal factor which, during such periods, supports the continuation of the characterized policies is the desire to maintain small business units for social or political reasons.

Reasonable people may well have different opinions about the meaning of "unfair" acts or methods of business. Is it unfair, for example, to deprive consumers of benefits which they can derive from trading with chain stores and other establishments operated with high efficiency? Often the manufacturers of nationally advertised goods that are differentiated by brand or trade-mark impose on retailers the obligation not to sell below a certain price. The independent small dealers generally are willing to submit to such "resale price maintenance" agreements, while the chain and department stores often oppose them. Their superior efficiency enables them to grant price cuts which attract customers. Should the independent dealers and manufacturers be permitted to prevent such price cutting? On the basis of section 5 of the Federal Trade Commission Act the courts have generally denied them this right. But during the Great Depression the pressure of the small establishments and manufacturers was strong enough to cause the adoption, starting in 1931, of laws in nearly all states which stamp resale price maintenance agreements with approval and thus, in effect, vindicate the view which regards price cutting as unsocial. In 1937 a federal law, the Miller-Tydings Act, legalized such agreements, provided they are lawful in the state where the resale is to be transacted. State laws which authorize the making of vertical resale price maintenance agreements are known as "fair trade" laws, a highly misleading designation.

The Miller-Tydings Act was passed in the form of a rider to a revenue bill for the District of Columbia, and only reluctantly approved by the President. It was the outcome of a persistent lobbying campaign directed against department stores and retail chain establishments. The Act, how-

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[12] Section 2 of the Clayton Act of 1914, as amended by the Robinson-Patman Act of 1936. The latter, often referred to as antichain store act, was sponsored by the trade association of independent wholesale grocers.

ever, confined privileged contracts to branded or trade-marked goods in free and open competition with products of the same general class. Also important is that horizontal price agreements (between different manufacturers, or between wholesalers, or between retailers) remained prohibited.

Consumers will see nothing fair in legislation that compels them to pay higher prices for items purchased in fair trade states as compared with the prices of identical items in other states. *Fortune* magazine in 1949 compared fixed versus free prices in nearby Maryland and the city of Washington, District of Columbia, which has no fair trade law. Of 117 identical drug items shopped, 35 cost 33 per cent less in free Washington, 38 cost 25 per cent less, and 29 cost 14 per cent less than in adjacent Maryland localities. Similar findings have been reported from a number of other places, such as East St. Louis, Illinois (fixed) and St. Louis, Missouri (free). A survey sponsored by the Department of Justice in 1956 revealed that in eight cities not covered by fair trade laws the average prices of some 132 articles were 19 per cent below the fair trade prices maintained for other areas.

The advocates of fair trade laws will refer to the alleged practice of selling "loss leaders" at heavily reduced prices in order to attract the public to the chain stores and other large establishments. This practice, which is made unlawful with respect to articles whose prices are fixed under fair trade laws, is said to be especially harmful to small retailers. It has, however, never been shown that independent small retailing establishments are more numerous or more prosperous in fair trade states than in those jurisdictions in which legislation of this sort has not been passed. Moreover the legislation has been an inducement to the big chain stores to introduce brands of their own rather than sell exclusively the price-fixed items.

Resistance against fair trade legislation came to its head in 1951, when the Supreme Court in the Schwegmann case held that the Louisiana fair trade law could not bind any merchant who had refused to sign a non-price-cutting agreement.[13] The Louisiana law, as those of other states, provided that a minimum retail price set by agreement between a manufacturer and a dealer applied to all dealers in the state, regardless of whether or not they signed the agreement. The Supreme Court found that such legislation unlawfully affected interstate commerce.

The decision in the Schwegmann case would have meant the end of fair trade practices of this sort, at least with respect to goods imported from other states, had not Congress, in 1952, enacted the McGuire Act. This law, which was passed over the opposition of the Department of Justice, Federal Trade Commission, and labor, farmer, and consumer groups, and was only

[13] *Schwegmann Brothers* v. *Calvert Distillers Corporation*, 341 U.S. 384 (1951). Schwegmann Brothers, a New Orleans supermarket, had sold fifths of Calvert Reserve Whisky for $3.35 and Seagrams for $3.51, when the distillers involved had agreed with other retailers that the Louisiana fair trade minimum retail price for these brands would be $4.24.

reluctantly approved by the President, expressly upholds state laws which are binding upon nonsigners—that is, the making of a single contract between a manufacturer and a retailer suffices to make the minimum price provisions of the contract mandatory for all retailers in the state. Schwegmann then continued his fight, directing it now against the constitutionality of the McGuire Act, but he lost out when the Superme Court upheld this law in 1953.[14]

Opposition to fair trade continues, however, and has resulted in making the fair trade laws ineffective in eighteen states, where the courts either threw out the whole law as unconstitutional or refused to recognize the nonsigner clause. In another four states there never was a fair trade law. But in such economically potent states as New York, New Jersey, California, Massachusetts, and Pennsylvania, fair trade laws continue to be on the statute books.

A further blow was given to fair trade when the Supreme Court in 1957 upheld a decision allowing the Washington, D.C., subsidiary of a New York concern to ship merchandise at free market prices from Washington, which has no fair trade law, to New York, which does have such a law.[15] As a result of this decision, as well as of the hostile attitude of many state courts, more and more manufacturers abandoned attempts to maintain the resale price of their products, with huge savings to the consumers as a result. Resale price maintenance all but ceased in the field of small appliances, paints, cameras and photographic equipment, and typewriters.

However, the supporters of fair trade, led by the National Association of Retail Druggists, developed great pressure in favor of new federal legislation that would go much farther than the McGuire bill. A bill, introduced in the 86th Congress, was designed to revive fair trade by much more drastic means than had been allowed in the past. Under the terms of this bill, the manufacturer did not have to make an agreement with a retailer, not

[14] *Eli Lilly Company* v. *Schwegmann Brothers*, 74 S.Ct. 71 (1953). The Supreme Court made no ruling about the constitutionality of the McGuire Act but refused to review the decisions of the lower courts which had affirmed it. There is an older decision of the Supreme Court in which the constitutionality of the fair trade principle is upheld on the basis that the goodwill of the manufacturer—which presumably would be adversely affected by price cutting on the part of retailers—is a property right that may be protected by fair trade legislation. *Old Dearborn Co.* v. *Seagram Distillers Corporation*, 299 U.S. 183 (1936). The principal objection which has been raised against this is that fair trade in practice protects retailers rather than manufacturers and their goodwill.

[15] *General Electric Co.* v. *Masters Mail Order Co. of Washington*, 355 U.S. 824 (1957). In another decision, which does not directly deal with fair trade, the Court held that a drug manufacturer had violated the antitrust laws by organizing action among wholesalers aiming at cutting off supplies to price-cutting retailers. *U.S.* v. *Parke, Davis and Co.*, 362 U.S. 25 (1960). This has been interpreted to mean that under fair trade all a manufacturer can lawfully do is a unilateral refusal to sell to a retail establishment that fails to maintain his price. If the price is not maintained, he may sue, but must not threaten the retailer to withhold supplies nor combine to this effect with wholesalers.

even with a single one, in order to maintain the resale prices of his products. By advertising or labeling he merely would have to give notice of his intention to insist on price maintenance, and such notice would be binding on all retailers. This bill was vigorously opposed by the Departments of Justice, Commerce, Agriculture, the Federal Trade Commission, and the Budget Bureau, as well as the spokesmen for state rights who pointed out that the states which had thrown out fair trade would now be saddled with it as a result of federal legislation. The spokesman for the antitrust division of the Department of Justice testified that the enactment of the proposed measure would spell the end of free enterprise and price competition in the retail field, with huge increases in prices burdening the consumers. He compared it in its effects with a federal subsidy, fixed not by the government but by private interests, that the consumers would have to pay almost like a sales tax. Although the bill was approved by the Commerce Committee of the House of Representatives, the Rules Committee, in 1960, failed to allow it to come before the House, and for the time being consumers will continue to benefit from the precarious legal status of "fair trade."

Under the shadow of fair trade laws, discount houses sprung up at many places. They made merchandise available at prices substantially lower than the conventional retail establishments. Some of them operated at first clandestinely, or sold their goods only to customers holding membership cards. With the vanishing of fair trade, the discount houses have come out into the open, and many of them have come to resemble conventional department stores. These, rather than small retailing outlets, are now their principal rivals, and as in many lines and at many places resale price maintenance has ceased to be effective, the difference in prices charged by the discount houses and by department stores has become very narrow. The total volume of business transacted by the discount houses has been estimated at from 45 to 90 per cent of that of the department stores. They have been of great help to consumers by competitively enforcing a policy of lower prices on the part of the department stores. In the words of the spokesman of the antitrust division of the Department of Justice, they provide "a type of competition in the best traditions of our economy."[16]

SUMMARY

Consumption may be stimulated by a variety of public policies. Actually, it is mainly by means of the private policies of business concerns—advertising—that consumption receives stimulation. Advertising is desirable in the sense that it creates a market for the ever expanding range of our products, but it tends to distort our system of values by making us favor

[16] Senate Small Business Subcommittee, *Hearings* on Discount House Practices, June 25, 1958, See also "Resourceful Merchants: The Discount Houses Are Taking On a New Look," *Barron's*, November 17, 1958, p. 3 ff.

the consumption of goods the advertisers want us to buy, at the cost of public consumption which is not backed up by advertising.

The expansion of consumption is facilitated by the liberal use of consumer credit. Consumers increasingly run up installment debt because many services formerly rendered by outside firms are now derived from tangible assets—automobiles, household equipment—which the consumers own and for which they cannot pay cash.

As an individual, the consumer often finds himself in a weak bargaining position. Attempts have been made to overcome some of this weakness through the formation of consumer co-operatives and other consumer organizations. Consumers are protected by the government in a variety of ways. Consumer protection is especially developed in fields where lack of vigilance would constitute health hazards.

Consumers are placed at a disadvantage by legislation which was passed during the depression period of the 1930's and which extends special protection to small retail establishments. The so-called fair trade laws, which legalize resale price maintenance, are a case in point. Their importance has been a diminishing one in recent years, but they may be revived by federal legislation.

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The most comprehensive study of consumer credit is *Consumer Instalment Credit*, a work of six volumes sponsored by the Board of Governors of the Federal Reserve System, Washington, D.C., U.S. Government Printing Office, 1957. Part 1, consisting of two volumes, treats of the growth and import of this type of credit. Part 2, likewise in two volumes, discusses the pros and cons of its regulation, as does Part 3. Part 4 is a special study on "Financing New Car Purchases."

For a discussion of resale price maintenance, see John Harms, *Our Floundering Fair Trade*, New York, Exposition Press, 1956.

STUDY QUESTIONS

1. How can consumption be discouraged by public policies?
2. How can consumption be encouraged by public policies?
3. What are the economic advantages of advertising from the point of view of society?
4. What are the disadvantages of advertising?
5. What are the effects of advertising on public consumption?
6. How did the food stamp plan operate?
7. Why is the consumer in need of special protection?
8. How does legislation cope with misleading advertising?
9. How does legislation cope with the hazards of food additives?
10. Why was the Food and Drug Administration taken out of the Department of Agriculture?
11. How does a discount store operate?
12. Why are the costs of distribution high?
13. In what lines of production is the consumer protected by labeling requirements?
14. What consumer organizations are you familiar with?
15. Approximately how much does the farmer receive of the food dollar spent by the consumer?
16. Do you think there is need for more effective policing of the drug industry?
17. What does the Miller-Tydings Act provide?
18. What does the McGuire Act provide?
19. How do you account for the growing opposition to resale price maintenance?
20. What is the status of fair trade legislation in your home state?

Chapter 8 THE STABILIZATION OF PRICES

The transactions of investors and consumers all are made at certain prices, and so is the employment of the services of productive resources. In this chapter we are concerned with the relative prices of individual goods and services as well as with the general level of prices.

To promote economic security, people desire a fairly stable price level, and they will insist on economic policies that ensure such stability. We shall discuss first the function of prices and turn later to the measurement of changes in the price level. Subsequently we shall trace our historical experience with prices and their upheaval since the 1940's. This will be followed by an examination of the nature of inflation, of its types, and of its impact on the various groups composing society. The chapter is concluded with a discussion of price stabilization policies.

THE FUNCTION OF RELATIVE PRICES

Relative prices serve a twofold function in our economy. Under free competition, the price clears the market by equating demand and supply. Moreover, regardless of the nature of the market, prices have an important role to play in the allocation of goods and services.

Competitive Prices Clear the Market. The prices of goods will tend to a level that is in stable balance, in the sense that deviations from it will not occur. The hypothetical price marking such a balance is called equilibrium price. The specific level at which a price will be in equilibrium depends on the characteristics of the market in which the transactions under study take place. The market situation may vary all the way from pure competition to monopoly. Under pure competition, there are many buyers and sellers, each demanding or supplying only so small a part of a homogeneous

supply that his participation in the transactions or his withdrawal from them makes no visible difference. Take, for example, the total supply of agricultural staples like wheat or cotton. It is in the hands of so many different individual sellers, and generally demanded by so many prospective buyers, that changes in the attitude of one buyer or seller will have no noticeable impact on price. Under such conditions the equilibrium price is established at a level where the quantity demanded is equal to the quantity supplied. Individual participants to the market have no power of manipulating it. If one were to withhold his supply, the quantity by which the total would fall would be too small to make a difference under the conditions of atomistic competition assumed here; and the same would be true if one were to cancel his demand. Under these conditions, price tends to be established by mechanical forces on the basis of thousands or millions of individual demand and supply schedules. To the individual the price then appears as imposed by outside forces over which he has no control. If his particular situation is considered, the price which he must take or leave is "given." But at the same time the going price is the result of the operations of all individuals taken in the aggregate; i.e., the price is a variable if the situation of all the individual buyers and sellers is generalized. Prices thus are what mathematicians call parameters—"a constant so long as you consider one particular situation, . . . a variable when you generalize all such situations."[1]

Under pure competition the going price approaches an equilibrium price just large or small enough to equate demand and supply. It is thus a price that clears the market. No such equating price is established under monopoly. The monopoly price, although an equilibrium price in the sense that deviations from it do not pay, is the result of the monopolist's ability to sell larger or smaller quantities, depending on the price he charges. While a competitive seller can sell all he wants without affecting the going price, the monopolist can sell increased quantities only at reduced prices. In general, this means not only that additional units must be sold at lower prices but that the unit price for any total volume of sales must be reduced as the volume increases. Only if the monopolist's position is such that he can practice price discrimination—i.e., charge his buyers different prices—he may be able to dole out his supply in separate parcels, selling some at a high price and others at a lower.

The monopolist's price is set at a level higher than that which would prevail under competition, and at this higher level the quantity demanded is generally lower than it would be at a reduced price. The price which he charges is such as to maximize the product of two factors: unit profits times quantity sold. The optimum quantity (which, if multiplied by unit profits, maximizes total profits) prevails at such a level of output where the

[1] Helen M. Walker, *Mathematics Essential for Elementary Statistics* (New York: Henry Holt & Co., 1934), p. 134.

increment in total revenue due to the sale of an additional unit just suffices to cover the increment in total cost incurred by producing that unit.

To a seller in a competitive market, a lower output does not bring a higher price. Consequently, he feels no inducement to reduce his sales. Contrariwise, he will sell, at the going price, all he can produce without suffering losses. These differences are important in the consideration of the second function of prices—the allocation of goods and services. This second function is a long-run phenomenon, requiring, as it does, the adjustment of production in accordance with consumer preferences.

The Allocation of Goods and Services. Some time ago the Bureau of the Census estimated that there are some 50 million women of 21 years and over in the United States. The number of mink coats, on the other hand, which can be manufactured per year, is less than 25,000. Thus, only one lucky lady out of 2,000 is able to obtain such a coat. It will be hers, because she can outbid the other ladies. The existence of prices which the purchaser of goods and services must pay is a manifestation of fundamental scarcity. If there were enough goods available to satisfy the whims and fancies of everybody, all goods could be free; and there would be no need to price them. But, as has been seen, in the face of scarcity, goods and services must be allocated, or "rationed," among competing uses and users; and the price is a means for obtaining a measure of rationality in this allocation process. It is a hurdle which prospective purchasers must overcome if they desire to get hold of the goods. If the price is high, so will be the hurdle. Under competition, prices are just high enough to equate the supply with effective demand. If the demand is vigorous relative to the supply, the price will be high; in the opposite circumstances, it will be low.

Different users of productive resources and consumer goods attach different values to these resources and goods. The differences are reflected in their price bids or demand schedules. Productive resources are allocated to those uses for which the highest bids are made, and the highest bids will be made generally for resources that enter into commodities for which consumers manifest the highest preference. In this way the price system, as the allocation of goods and services in response to prices is called, tends to maximize consumer satisfaction. Since it is the consumer who thus determines the flow of productive resources, people have spoken of "consumer sovereignty" as a characteristic of the price system.

While the principle is true, it is subject to important qualifications. One of these bears upon the distribution of income. The price system does not maximize consumer satisfactions in an absolute sense but only relative to a given income distribution. The distribution may be such as to prevent the demand of some consumers for elementary necessities of life from becoming effective, while enabling others to manifest effective demand for luxuries or harmful things. In this way the price system may divert productive resources into channels where they serve the production of luxuries,

while output of necessities is starved. If this happens the maximum of consumer satisfactions, attained by way of the price system, will be greater when the distribution of income is less concentrated.

The second qualification has to do with the existence of monopoly power. As has been seen, such power leads to the acquisition of extraordinary receipts on the part of the monopolist and induces him to produce less than he would otherwise. A system that is permeated by monopolies will thus achieve less in the maximization of consumer satisfactions than one in which competition stands out. Monopolies distort the allocation of resources that would prevail under competition.

Still another qualification relates to the widespread and increasing use of advertising in our economy, which has been commented upon in an earlier chapter (pp. 131 ff.). Consumers are sovereign in being at liberty to make price bids for the goods which they desire—but what goods to desire is suggested to them by the advertisers.

However, regardless of whether or not the consumer preferences are autonomous or manipulated, business firms that fail to produce goods in accordance with the preferences of the consumers, as expressed by their price bids, will eventually be unable to stay in production. To employ the services of productive resources, any business firm must attract them by offering to pay for an equivalent service as much as other firms are willing to pay. A firm whose product does not satisfy the consumer will be unable to earn a sales revenue that will cover what it must pay for the services of productive resources, that is, the firm's cost of production. An inefficient firm is likely to find itself in a position similar to that of a firm which turns out undesired products. Its revenue will fail to cover its cost. In this manner the price system, in the long run, brings about the allocation of productive resources among those firms which turn out goods in accordance with consumers' preferences and which do this in an efficient fashion.

Prices also affect, in the long run and to the extent to which it is physically possible, the quantity of productive services that will be available for purchases by business firms. If the reward of a certain factor—say, of a certain skilled trade—is high, the supply of the factor will in time increase; if the reward is low the entry of newcomers into the trade will be discouraged.

Finally, the interest rate, that is, the price at which funds are available for loans, affects the extent to which productive resources are devoted to the further growth and expansion of the economy. Other things being equal, a low rate of interest will facilitate the allocation of a greater quantity of resources to uses which will yield products in the future. A high rate of interest, on the other hand, is likely to channel resources into uses where they will yield products fairly soon.

Prices thus determine what goods are to be produced in the economy and in what quantities. Prices, of products and of productive services, se-

cure the most efficient allocation of productive resources among industries and firms. Prices attract or discourage, as the case may be, the newcomers whose entry will swell the supply of a productive service. Prices, in the form of interest rates, "ration" the supply of productive resources available for use in the future. The importance of prices is indeed paramount in our economy, which, for this reason, often is referred to as "price system."

In the light of the foregoing discussion, it is easy to see that claim for the maintenance of a relative price can be justified only in rare circumstances. If the farmers, for example, had persuaded the nation to adopt a policy of protecting the prices of agricultural products 150 years ago, we still would be an agricultural country. Such a stabilization policy would have halted the outflow of productive resources from agriculture and encouraged the movement of new resources into agriculture. Productive resources would have failed to bo allocated into those uses which produce the wealth of nonagricultural goods and services available to us today.

Moreover, in a free market, if a price is stabilized over and above what it would be in the absence of such stabilization, it will not equate the quantity demanded with the quantity supplied. Instead, at the higher price the quantity supplied will exceed the quantity demanded, the excess measuring what is known as a "surplus" that can not find a buyer. Contrariwise, if a price is artificially kept below the free-market price, the quantity demanded will exceed the quantity supplied, and the excess measures what is known as a "shortage."

THE PRICE LEVEL

Unlike relative prices, which are measured in terms of money, the price level cannot be measured at all. The only thing we can do is measure average changes of the price level. This is done with the help of index numbers, which will be discussed presently.

As prices are expressed in terms of a universal denominator, money, changes in the level of prices reflect changes in the value of money. As the price level goes down, the value of money increases. The instability of money and prices over periods of time is a phenomenon of great importance. It means, to express it in simple terms, that the quantity of goods or services which can be exchanged for a dollar is larger or smaller, as the case may be, this year than it was in the past, and will again be different in future. On a minor scale, fluctuations of this sort go on all the time without doing much harm. But, on occasion, they may become very pronounced and then cause profound modifications of the social structure.

Sometimes economists want to eliminate the effect of changes in the purchasing power of money on the money values of certain magnitudes; that is, they wish to express these values in real terms. They may refer, for example, to "real wages" at different periods of time, having in mind the

quantities of goods which wages buy at such periods. If they speak of "money wages," all they are concerned with are different quantities of money. If the price level goes up at a rate faster than money wages, real wages decline. If the price level goes up at a slower rate than money wages, real wages increase. Real wages also increase if the price level falls faster than money wages, and they decrease if the price level declines at a slower rate than money wages.

Index Numbers. Changes in the price level are measured by means of index numbers. They express variations in the form of percentages computed on the basis of a given year, called "base." If the price of cabbage is 10 cents this year, 15 cents next year, and 25 cents the year after next, and if the present year is taken as base, index numbers for the three years are 100, 150, and 250. If the next year is taken as base, they are 66, 100, and 166. If the year after next serves as base, the numbers change to 40, 60, and 100. Generally a year considered "normal" or otherwise representative is taken as a base.

While a simple arithmetic operation suffices to change the base of any given series of index numbers, the selection of a base is not without importance because of the dignification of the base year as reflecting the presumably desirable situation of normalcy. Of still greater importance is the selection of the period under study. If it is made to begin at a low year, the subsequent movement will point upward. If it starts with a high year, the ensuing downward movement will create an impression of a different sort in people's minds. There is, furthermore, the problem of weighting the various items which enter into an index and the related one of changing the weights in accordance with changing conditions—problems whose solution often requires the application of judgment and discretion. Index numbers have become an important instrument in wage negotiations, and their public presentation is often designed to bring influence to bear upon policy makers.

Index numbers are not only computed for prices but for a great variety of other series. An important nonprice index is, for example, the index of industrial production prepared by the Federal Reserve Board. Among the price indexes, that of wholesale prices published by the Department of Labor stands out. It reflects changes in the weekly and monthly market quotations of many hundred commodities. In computing it the price of each article is weighted by the approximate quantity marketed during the relevant period. The index is reproduced in Table 7.

Another index, likewise prepared by the Department of Labor, is designed to indicate changes in the cost of living (see Fig. 23). Its name, "consumer price index," expresses its specific content. It measures changes of the prices of goods typically bought by city wage earners and clerical workers. This index is in the third column of Table 7.

Changes in the cost-of-living index immediately affect the wages of

TABLE 7

INDEX NUMBERS OF WHOLESALE PRICES AND OF CONSUMER PRICES, 1929–59 (1947-49 = 100)*

Years	Wholesale Prices	Consumer Prices
1929	61.9	73.3
1930	56.1	71.4
1931	47.4	65.0
1932	42.1	58.4
1933	42.8	55.3
1934	48.7	57.2
1935	52.0	58.7
1936	52.5	59.3
1937	56.1	61.4
1938	51.1	60.3
1939	50.1	59.4
1940	51.1	59.9
1941	56.8	62.9
1942	64.2	69.7
1943	67.0	74.0
1944	67.6	75.2
1945	68.8	76.9
1946	78.7	83.4
1947	96.4	95.5
1948	104.4	102.8
1949	99.2	101.8
1950	103.1	102.8
1951	114.8	111.0
1952	111.6	113.5
1953	110.1	114.4
1954	110.3	114.8
1955	110.7	114.5
1956	114.3	116.2
1957	117.6	120.2
1958	119.2	123.5
1959	119.5	124.5

* *Economic Report of the President*, January, 1960 (Washington, D.C.: U.S. Government Printing Office, 1960), pp. 196 ff.

close to five million workers covered by contracts containing automatic cost-of-living or escalator clauses. Such clauses usually add one cent to hourly wages for every 0.5 point rise in the consumer price index. If the index declines, there is an automatic downward adjustment of wages, usually with a floor below which they will not fall. Escalator clauses used to be rejected by labor unions in the past because such clauses fail to provide an increase in real wages. They became popular during the postwar inflation and during the Korean War, when they were combined with an "improvement factor" (see p. 209). They are chiefly found in the automotive and steel industries. Some observers consider escalator clauses inflationary, but

others have pointed out that wages in industries not covered by such clauses do not increase at a significantly slower rate than do wages that are affected by escalator clauses. As prices became more stable during the late 1950's, escalator clauses became increasingly unpopular among organized labor.

CONSUMER PRICES

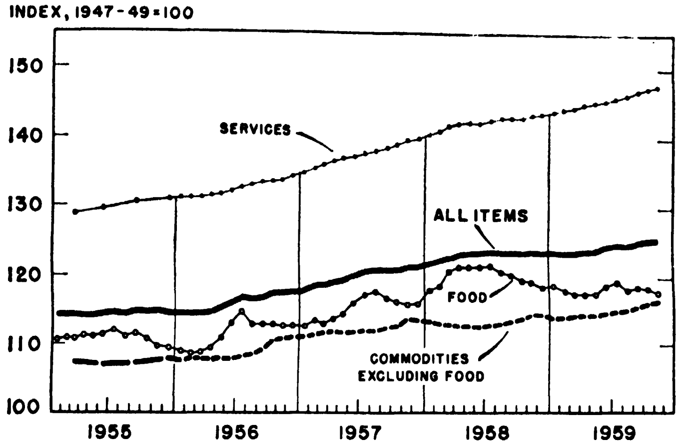

FIG. 23. Consumer prices continue to drift upward, except those for food. From Economic Report of the President, January, 1960, p. 24.

With the help of index numbers, it is possible to "deflate" such series as wages, incomes, profits, construction awards, and the like, which are expressed in terms of current dollars. By means of statistical deflation, changes in the values of current dollars are corrected; the series is thereby converted and reflects real terms, or volume, instead of value. Students must beware of confusing this statistical use of the word "deflation" with its more general meaning as an opposite to inflation. A series is deflated by dividing it by a suitable price index. Take, for example, average weekly earnings of production workers in manufacturing industries, estimated by the Department of Labor. This series is reproduced in the second column of Table 8. If it is divided by the consumer price index, a deflated series is obtained, which now indicates average weekly earnings in terms of constant dollars—that is, in the present case, dollars of 1959 purchasing power. The table shows that, while earnings in current prices doubled during the period under study, the quantity of goods which the earnings could buy increased to a much lesser extent on account of rising prices. Indeed, during a number of years—from 1946 to 1947, from 1953 to 1954, and from 1956 to 1958—earnings in constant dollars declined, although they continued to rise in current dollars.

The Past Behavior of Prices. During the past one and a half centuries, price movements in the United States have not been excessive if compared

TABLE 8

AVERAGE WEEKLY EARNINGS OF PRODUCTION WORKERS IN MANUFACTURING INDUSTRIES, IN CURRENT AND 1959 PRICES, 1946–59*

Year	Dollars in Current Prices	Dollars in 1959 Prices
1946	43.82	65.40
1947	49.97	65.15
1948	54.14	65.54
1949	54.92	67.14
1950	59.33	71.83
1951	64.71	72.54
1952	67.97	74.53
1953	71.69	78.01
1954	71.86	77.94
1955	76.52	83.17
1956	79.99	85.73
1957	82.39	85.38
1958	83.50	84.17
1959	89.47	89.47

* *Economic Report of the President*, January, 1960 (Washington, D.C.: U.S. Government Printing Office, 1960), p. 134.

with those in countries that have passed through periods of great inflations. When we inspect the United States wholesale price index which uses the period from 1947 to 1949 as a base, we observe that the level during the base years represents a peak that was exceeded only during the Korean War in 1951 (see Fig. 24). During the past, it had been approximated only on two occasions—in 1814, during the War of 1812 and in 1920, subsequent to World War I. Another peak, though a less pronounced one, occurred in 1865, during the final phase of the Civil War. It is no accident that price upheavals are connected with great wars.

Of the troughs the deepest was reached in 1896, following the Panic of 1893 and the short-lived recovery of 1895. The index then fell almost to 30. The range between peaks and troughs seems rather moderate in the light of the enormous expansion of business activity in the United States, marked by a manifold increase in population, production, and money. It appears to be more so if the development in other parts of the world after the two world wars is considered. After World War I, prices in Germany rose in terms of thousands of billions; and after World War II, they increased still more steeply in Hungary. During the peak of the German inflation the value of the currency had fallen so low that one dollar brought 4,200,000,000,000 marks. In Hungary one dollar was exchanged for 145,000,000,000,000,000,000,000,000,000 pengö. The French franc, worth approximately 20 cents in 1914, had fallen to the equivalent of one fifth of a cent in 1960, when it was replaced, at the ratio of 100 to 1, by a new franc, worth again 20 cents.

WHOLESALE PRICES, 1800–1960

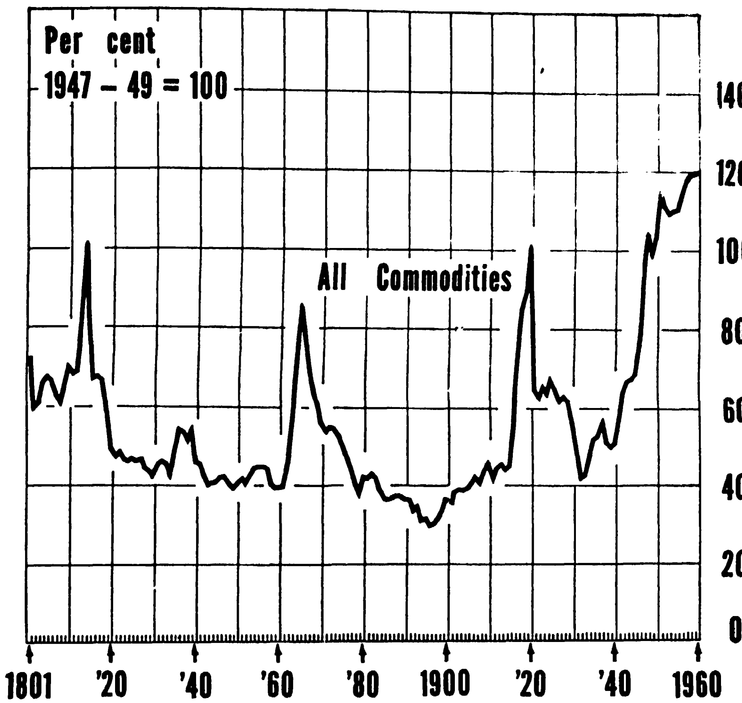

FIG. 24. Peaks of wholesale prices occur in conjunction with great wars. Note the four peaks. During the late 1950's, wholesale prices were stable. Source: Department of Labor. From *Hearings before the Subcommittee on Antitrust and Monopoly of the Senate Judiciary Committee,* March 10, 1959.

What Causes Price Movements? The upward or downward movement of the price level reflects a disproportionate development of the total demand for goods and services and their total supply. If the demand increases more rapidly than the supply, prices will rise. This process is called inflation. Deflation occurs if demand decreases and prices fall. Demand originates with consumers, businessmen, the government, and foreign purchasers. The total demand depends upon their willingness and ability to make disbursements. The supply of goods is determined by the employment level of productive resources and their productivity, and also by such factors as imports and inventory levels.

As has been seen in previous chapters, consumer spending reflects, on the whole, different influences than those which guide businessmen, the government, and foreign purchasers. The purchases of consumers are tied up intimately with their incomes, while the expenditures of the three other groups responsible for total demand are determined, at least in part, by forces which are more "spontaneous" or autonomous in nature. There is,

however, vigorous interaction between consumer spending and the investment and consumption expenditures of the other groups, interaction that can be visualized by means of the multiplier and the principle of acceleration.

What consumers, businessmen, and the other spending units have available for disbursements is determined by the amount of liquid assets placed at their disposal. In our economy, these consist of currency only in part; a greater proportion is in the form of bank deposits. Early in 1960, for example, the amount of currency held by the public was $28 billion and that of demand deposits over $110 billion. The availability of liquid assets in itself does not ensure a vigorous rate of spending, but without them disbursements cannot take place. However the organization of our economy is such that liquid assets can be created if businessmen, the government, or consumers want to step up their rate of spending.

In the modern economy the quantity of currency and bank money is much more easily manageable than was true in the past when these quantities were related closely to metallic substances. Under present conditions, all that is needed to increase the quantity of money is a decision of the monetary and banking authorities. A small increase in the reserves of commercial banks—mainly balances with Federal Reserve banks—can become the basis for a considerably larger increase in credit. If the reserves of commercial banks are increased by one dollar, they can grant new loans or purchase securities and thereby create demand deposits up to six dollars. This multiple expansion of credit goes back to the reserve requirements which are supposed to limit the credit extension of commercial banks. Depending on the location of banks, they are required to carry balances with the Federal Reserve banks in amounts equal to certain percentages of their demand deposit liabilities.

The requirements are determined by the Federal Reserve Board within a statutory range that is from 10 to 22 per cent for the "central reserve city banks" in the financial districts of New York City and Chicago and for the "reserve city banks" in the large towns, and from 7 to 14 per cent for the "country banks." For time deposits the range is from 3 to 6 per cent, regardless of the location of the bank. If the average reserve requirement of all commercial banks, taken together, is about 16 per cent, the deposit liabilities may be six times as large.

At a given level of liquid assets, people's rate of spending is influenced by the strength of their desire to hold cash balances instead of other goods or assets. Inspired by this desire, which is called liquidity preference if it is expressed as a function of the rate of interest, they will want to hold a certain proportion of their assets in the form of cash balances, including bank deposits. The total demand for goods thus becomes a function of aggregate liquid assets and liquidity preference. The former variable is influenced by the decisions of banks and monetary authorities; the latter, by

a host of phenomena, some of them economic in character, others political, and still others psychological. Among the psychological factors, anticipations of the course which business is likely to take in the future are especially noteworthy.

The sum of cash balances held by the public is of necessity identical with all the money—currency and bank deposits—that exists at a given moment. That is to say, every dollar in existence is somebody's cash balance. Every dollar spent is a movement of cash balance from one person to another. The ratio of total disbursements—movements of cash balances from hand to hand or from account to account—to the total amount of money is called velocity of circulation.

As long as people do not desire to change the average size of their cash balances, the average velocity of circulation of the money stock will remain the same. If some people try to reduce their cash balance by exchanging it for larger quantities of goods or securities, total disbursements will increase. This will imply that, with a given stock of money, a larger amount of disbursements is made. The average velocity of circulation of money is thus increased. If, on the other hand, some people try to increase the amount of their cash balances and for this reason reduce their demand for goods or securities, total disbursements and thus the velocity of circulation will decline.

It goes without saying that the increased demand associated with an increase in the velocity of circulation is apt to raise the price level; and, likewise, the reduced demand associated with a decline in the velocity of circulation is apt to depress the price level. The relationships discussed here have conveniently been expressed in the so-called equation of exchange, which states that the price level is the ratio of the total amount of money spent on goods to the total production of goods and that the total amount of money spent on goods is, in turn, the product of the quantity of money times its velocity of circulation. The equation can be expressed in a variety of different fashions. One of the more prominent formulations is that of Irving Fisher (1867–1947), a distinguished American economist, who used the following formula: $PT = MV$ (price level times physical volume of trade is equal to the quantity of money times its velocity).

An increase in expenditures resulting from a reduction in the demand for liquid balances and/or from an increase in the supply of liquid balances generally will stimulate production if there is less than full employment of resources. However, because of frictions, immobilities, the structure of costs, time lags, and positions of monopolistic power, it is likely that any such increase in production can be had only at the cost of slowly rising prices. Once expenditures increase under conditions of full employment of resources, the rise in prices will tend to be more violent.

In the preceding analysis of the short run, every situation is explained as either inflationary or deflationary; and no evil meaning is attached to

either term as such. Avoidance of inflation or deflation would require absence of any upward or downward change of the price level resulting from increased or reduced aggregate spending. There are usually minor changes of this sort going on. More important than the mere existence of price changes is their dispersal, speed, and direction.

The Impact of Price Changes. If prices go up the holders of liquid assets and, *for that matter, all creditors are threatened by the depreciation of their assets in real terms. If prices go down the real value of their holdings* increases, but so does the burden on the debtors. When prices rise, people who want to sell are better off; when they fall, prospective buyers receive more for their money. Now, as every purchase requires buyers as well as sellers, one might expect offhand that the benefits from rising prices which accrue to sellers will be offset by the sacrifices imposed on buyers. But this is not so. There is really only one prominent group of buyers in society, the consumers. They receive more for their money when prices go down, but also how much money they have to spend is determined by the level of prices, if only indirectly. They generally will have more money to spend when prices rise: increasing prices usually go hand in hand with increasing production and employment, although the rates at which these magnitudes advance may differ. Thus, when consumers appear to gain from price falls, they are threatened by losses through unemployment in their capacity as income receivers. The situation is different only for the receivers of incomes which are fixed, although, as will be seen, not necessarily so. But in any event the receivers of such incomes are not vociferous in society; they lack in organized strength, and their pleas are seldom heard.

The business community, on the other hand, buys productive factors and sells products. If this happens at rising prices, there generally will be a tendency to buy more factors of production, stock up on inventories, and profit from the appreciation of the product. Windfall profits of this type will tend to spread through the entire business world. Output will be disposed of easily, because the rewards to the owners of the input factors are liberal and many of these factors are employed. But what makes rising prices even more attractive to the business community is the fact that there is often a lag in the rise of factor prices behind that of output prices; and the greater this lag, the larger the profits of business. The lag will occur, for example, when inflation is stimulated by a rise in total wage payments. If, then, the supply of consumer goods cannot swiftly be expanded, there will be dollars in the hands of people looking for more goods than are available. If the dollars are used for bidding up the prices of existing goods, profits will increase. It is possible that real wage rates will fall if employment increases faster than the supply of consumer goods. Such fall will call forth a further increase in money wages and again in prices. There then arises the "vicious spiral," because after a fall in real wage rates money

wages cannot "catch up" with prices and restore the previous level of real wage rates.[2]

If the supply of consumer goods is elastic, as it generally will be when resources are not fully employed, the movement proceeds less violently. With organized labor in a strong position of bargaining, it often happens that real wages do not fall—even when conditions of full employment are approximated and prices rise rather steeply. Under such conditions, real wages will not fall if the increase in money wages enables the recipients to bid away goods from other groups in society: for example, from workers in a less favorable bargaining position, salaried people, and persons living on fixed incomes whose receipts do not increase at all or only slowly.

During a number of years in the 1950's the consumer price index rose only by 1 or 2 percentage points. An inflation of this type came to be known as a "creeping" one. Some belittled it, while others pointed out the danger which a continuation of ever so small an annual increase in prices would constitute. Such increases, if compounded over the years, would cause the value of the dollar to be halved in 35 years, assuming an average annual increase in prices of 2 per cent. Much was made of the force of "self-realizing anticipations," indicating that if people fear something will happen, they will bring about the feared event by their own actions. If further rises in prices are anticipated, people try to arrange their affairs in such a manner that they are likely to bring about the anticipated event: by insisting on ever-rising money incomes, with which they hope to "beat" inflation, by going into debt, by refusing to hold on to monetary claims, and by attempting to turn them into real assets or shares of stock. If inflation then becomes worse, it is known as "galloping," or "hyperinflation."

Can a creeping inflation come to a stop? Possibly so, if the real demand for goods declines as a consequence, for example, of a fall in real wages, a rise in profits, the greater progressiveness of the income tax as incomes increase, and the ensuing decline in real cash balances.

In 1958 and 1959 the wholesale price index was virtually stable, and some observers were inclined to believe that the great postwar inflation had come to a stop. By that time the world's capacity to produce goods had greatly increased; there were no more shortages, and the prices of important raw materials and foodstuffs had moved downward for some time. Nevertheless, with the real or apparent interests of the most important producing groups attached to a rising level of prices, it is not surprising that our age has been characterized as having an inflationary bias.[3] Great wars add fuel to the inflationary tendency, and so do the constantly increasing

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[2] M. Kalecki, "What is Inflation?" Institute of Statistics, Oxford, *Bulletin*, Vol. III (7 June, 1941), p. 161.

[3] "The Age of Inflation." Reprinted from *Economist*, August 18 and 25, and September 1 and 8, 1951.

budgets of modern democratic governments. They invite deficits, covered by bank loans and new issues of money. The basis for all this is the modern credit system. The fear of deflation increases the inflationary bias. People recall that the massive fall of prices during the early thirties was attended by a severe depression and mass unemployment and that the subsequent recovery proceeded at slowly rising price levels. They are, therefore, inclined to identify rising prices with prosperity. This may be true, but not for those whose incomes rise only slowly or not at all.

Other factors that give support to the inflationary trend are the growing strength of trade-unions, the widely endorsed goal of full employment, and the leveling of incomes which has occurred in the United States and in European countries. Diffusion of income is likely to encourage consumer spending and depress the rate of saving. Is it a redeeming feature of inflation, as some hold, that the inflationary process entails an upward revaluation of people's assets? With wealth or assets three or more times the value of incomes, the owners of stocks, homes, and other tangible assets reap substantial windfall gains when prices rise; and these gains might offset, it is believed, wholly or in part, at least, a deterioration of the real income. This argument carries little conviction, however. So long as the assets are held, the gains exist only on paper. When they are sold the gain might be realized, but people then are deprived of their asset. In the case of a home, for example, its sale at a high price will do little to enhance the economic position of the owner if he has to find new dwelling space, likewise available only at high prices.

When prices fall, recipients of fixed incomes find themselves confronted with another dilemma. While the real value of their incomes goes up, falling prices and the circumstances attending such a development often entail the wholesale destruction of assets. Businesses go bankrupt, banks fail, mortgages and bonds cannot be serviced. This is bound in some way or other to affect the money claims of many receivers of fixed incomes. The fact that the interest payment on a bond buys more than it did in the past when prices were higher is of little help when interest payments cease altogether or are curtailed drastically.

The Quest for Stability. It is especially the middle class, the backbone of liberal society, among which the receivers of fixed incomes are most prominent and which therefore has to bear the brunt of excessive price fluctuations. Lack of organization among the "new" middle class (white-collar workers) and the inroads of large-scale enterprise into its older representatives, the small businessmen, have placed this class into a position of defense. Although in some of the larger business concerns the nonorganized white-collar workers receive salary adjustments in line with pay raises granted to organized labor, this practice is by no means universal and it does not help the groups operating under less-favorable conditions. The pensioners and retired people are another group that is badly affected by

rising prices since the real value of their pensions, annuities, and other retirement benefits tends to decline. Although Congress has periodically increased benefits granted under old age and survivors insurance, this has barely sufficed to stabilize the real value of these benefits in the face of rising prices.

One bastion which would provide a modicum of protection to these and other adversely affected groups is the attainment of a stable price level. As an analytical tool that reflects a deep yearning for stability, economists have coined the concept of stable money, pertaining to a situation where the quantity of money is exactly such as to stabilize the price level. Numerous devices and changes in institutions have, at one time or other, been recommended as means to attain such stability. They include the tabular standard and the compensated dollar. Under the tabular standard, a scheme advocated by the great British economist Stanley Jevons (1835–82), the standard of deferred payments would be set in accordance with the purchasing power of money, with payments determined by index numbers. Thus, a mortgage worth $10,000 would automatically require the payment of $12,000 when, at the time of its maturity, the price index had risen by 20 per cent. Obviously, if such a scheme were widely or universally adopted, it would defeat its own purposes as it would add new fuel to the fire of inflation.

Under the compensated-dollar plan, formulated by Irving Fisher, the price level was to be stabilized by manipulating the gold price. If the price level rose, the price of gold was to be reduced in the same proportion; under the gold standard, this might then lead to credit contraction and correction of the price level. If the price level fell, the price of gold was to be increased; this might allow for, but would in itself not bring about, an expansion of money and credit as a given quantity of gold could become the basis of a larger volume of dollars. This aspect of the compensated-dollar plan proved so attractive that the exponents of related proposals assumed a leading role in guiding the monetary policies of the United States in 1933 and 1934, when the gold content of the dollar was reduced and the price of gold in dollars increased. Most observers are inclined, however, to ascribe the rise in commodity prices, which subsequently took place, to factors other than the rise of the gold price—to various recovery measures and the agricultural program of the government.

A somewhat different argument underlies the 100 per cent reserve plan, likewise a creation of the fertile mind of Irving Fisher. It is based on the notion that the issue of fiduciary money is a prerogative of the government, a view which has found recognition in American monetary history with the virtual elimination of private bank notes. But while private bank notes have disappeared in consequence of the redemption of those federal bonds which could serve as security for their issue, the banks—so the exponents of the 100 per cent reserve plan hold—have recaptured the privilege of

issuing fiduciary money by creating deposit money. They further hold that the expansibility of bank deposits, which have come to be a multiple of currency, makes for instability and permits the making of profits that are in the nature of a tax on the community at large. For these reasons, they propose that banks should be allowed to grant demand deposits only against 100 per cent reserves. The principal objection against this plan is based upon the institutional waste it entails: it would deprive banks of their customary functions of lending and investing and would require difficult processes of adjustment, culminating in the organization of new institutions to assume these functions.

Furthermore, under the 100 per cent reserve plan the banks would cease to acquire earning assets by extending credit to their depositors. Users of checking accounts would become liable to heavy service charges, unless some other way is found to finance these services of the banks. Another difficulty relates to the initial introduction of the plan. As the banks hold only fractional reserves, the increase in reserves to 100 per cent would spell drastic credit contraction and deflation, unless the banks—and such a proposal has been made—receive the difference between the fractional and the 100 per cent reserves as a free gift from the government.

However, whatever the merits of this and similar proposals may be, there is little likelihood of their ever being applied in practice. The leading groups in society have come to be less attached to stability of prices or money but prefer to think in terms of stability of income or employment. Hence the measures discussed in the following section, which are of greater practical significance than the 100 per cent reserve or other monetary reform schemes, do not aim at a reorganization of economic institutions in order to secure greater stability of the price level. They rather indicate the control mechanisms which, under the prevailing economic order, are placed at the disposal of public authorities and which are available once price fluctuations tend to become obnoxious.

STABILIZATION POLICIES

Policies aiming at the stabilization of the price level may be pursued in a variety of ways. By means of fiscal policy, the government may exercise restraint in its demand for goods and services. By means of monetary and credit policies, the monetary authorities may control the rate at which money and credit are expanded. In addition to these policies which affect the over-all operations of the economy, or as an alternative to them, the government may tackle the problem of inflation by scrutinizing or regulating relative wages and prices, by increasing the mobility of labor, and by pursuing other programs designed to stimulate production.

Fiscal Policy. The government can reduce its demand for goods and services by observing strict economy in its own expenditures. However, the

level of these is often influenced by considerations which weigh more heavily than the desire to stem the tide of inflation. The world outlook may make the maintenance of a substantial military establishment imperative. Foreign commitments may call for disbursements. Social policies cannot be discontinued on short notice. If government demand thus should prove relatively inflexible, its inflationary pressure can be minimized if it is financed exclusively by taxation. Thereby purchasing power is drained away from other sectors of the economy, and their demand thus is discouraged. If taxation is severe enough to cause government income to exceed expenditures, the surplus can be used for the redemption of the public debt.

Among the holders of the public debt, private individuals, commercial banks, and the Federal Reserve banks stand out. Reduction of the public debt held by private individuals may not relieve the inflationary pressure. What had been the taxpayer's money will, after the tax collection and bond redemption, be the bondholder's money. It is, of course, possible and, perhaps, even likely that a large proportion of the money, so long as it was in the taxpayer's pockets, would have gone into consumption; whereas the money used for bond redemption might subsequently be reinvested. The most effective debt policy during inflation is the redemption of that part of the public debt which is held by the Federal Reserve banks. If the government transfers tax receipts to the Federal Reserve banks to reduce their holdings of the public debt, the money stream—bank deposits as well as bank reserves—is thereby diminished. The taxpayers' bank deposits decline, and the banks' deposits with the Federal Reserve banks—their reserves—are shifted to the Treasury and subsequently extinguished when the Treasury redeems its securities with this claim against the Reserve banks. If the government uses tax receipts for the redemption of bonds held by commercial banks, this will result in a fall in deposits only if the banks do not use their freed lending capacity for new loans to business. If they do, what had been the taxpayer's money will now be the bank borrower's money.

Monetary and Credit Policies. Demand may further be discouraged by monetary and credit policies. The foundation of all credit is the reserves of the commercial banks. The Federal Reserve authorities can create or destroy reserves by means of open-market policies, that is, by the purchase of government securities from the public. If they buy securities, they create reserves; if they sell them, they destroy reserves. The Federal Reserve authorities also have the power, within a range set by law, to determine the amount of reserves which the member banks are required to maintain relative to deposits. If they lower these requirements, a given amount of reserves can serve as the basis for an expansion of credit; if they raise them, the same amount of reserves will suffice only for a smaller amount of credit. Furthermore, the Federal Reserve banks may vary the so-called discount rate, that is, the rate of interest charged to commercial banks when they

borrow from the Federal Reserve banks. A reduction of this rate encourages more liberal borrowing and lending; an increase has the opposite effect.

From 1945 to 1960 the money supply, that is, demand deposits plus currency, has increased from $102 billion to $140 billion, that is, by approximately 40 per cent, whereas the gross national product more than doubled during the same period. A given amount of money thus supports a vastly larger volume of transactions and of income: the velocity of money has risen substantially (see Table 9).

TABLE 9

MISCELLANEOUS FINANCIAL STATISTICS, 1945-59*

Year	Gross National Product ($ Billion)	Money Supply ($ Billion)†	U.S. Government Securities Held by Federal Reserve Banks ($ Billion)‡	Legal Reserve Requirements (% of Demand Deposits)§	Range of Federal Reserve Discount Rates (% Per Annum)
1945	214	102	24	20	½-1½
1950	285	115	21	18	1½-1¾
1955	398	134	25	18	1½-2½
1956	419	135	25	18	2½-3
1957	443	134	24	18	3 -3½
1958	442	139	26	16½-18	2¼-2¾
1959	480	140	27	16½	2½-4

* *Federal Reserve Bulletin, passim.*

† Demand deposits adjusted held by the public plus currency outside banks.

‡ Par value.

§ For reserve city banks.

Over the same period, member-bank reserves have increased only by $3 billion. As the money supply has gone up by about $40 billion, this rise was therefore only to a relatively small extent made possible by the creation of new reserves via open-market purchases. Indeed, the par value of government securities held by the Federal Reserve banks rose only from $24.3 billion in 1945 to $26.6 billion early in 1960. Much the more important factor in facilitating the expansion of the money supply has been the gradual reduction of reserve requirements. These were 20 per cent for reserve city banks in 1945, and 16½ per cent in 1960. An additional dollar of reserves thus serves as support for $6, instead of $5, of additional deposit money.[4]

[4] In addition to the creation of new reserves by open-market purchases and to the reduction of reserve requirements, the money supply also rose as a result of an increase in silver certificates and in borrowing from Federal Reserve banks. Additions to the gold stock, which also create reserves, were zero for the period as a whole.

From the point of view of the whole economy, it makes little difference whether monetary expansion is facilitated primarily by open-market purchases or by reduction

While the monetary authorities thus allowed the expansion of money and credit, they pursued, over the same period, but more markedly so since the early 1950's, a policy of tightening credit by steadily raising the discount rate. This rate was between 1½ and 1¾ per cent in 1950; ten years later, it had shot up to 4 per cent. Other interest rates followed suit (see Table 10 and Fig. 25).

TABLE 10

TRENDS IN INTEREST RATES AND BOND YIELDS, SELECTED YEARS 1920–59, IN PER CENT*

Year	Prime Commercial Paper, 4–6 Months	Corporate Bonds, Top Grade	91-Day Treasury Bills	3-5 Year Treasury Notes†	Long-Term Government Bonds†
1920	7.50	6.12	‡	‡	5.32
1929	5.85	4.73	‡	‡	3.60
1933	1.73	4.49	0.51	2.66	3.31
1943	0.69	2.73	0.375	1.34	2.47
1944	0.73	2.72	0.375	1.33	2.48
1945	0.75	2.62	0.375	1.18	2.37
1946	0.81	2.53	0.375	1.16	2.19
1947	1.03	2.61	0.604	1.32	2.25
1948	1.44	2.82	1.040	1.62	2.44
1949	1.48	2.66	1.102	1.43	2.31
1950	1.45	2.62	1.218	1.50	2.32
1951	2.17	2.86	1.552	1.93	2.57
1952	2.33	2.96	1.766	2.13	2.68
1953	2.52	3.20	1.931	2.57	2.93
1954	1.58	2.90	0.953	1.82	2.54
1955	2.18	3.06	1.753	2.50	2.84
1956	3.31	3.36	2.658	3.12	3.08
1957	3.81	3.89	3.267	3.62	3.47
1958	2.46	3.79	1.839	2.90	3.43
1959	3.97	4.38	3.405	4.33	4.07

* *Federal Reserve Bulletin, passim.*

† Taxable after 1933.

‡ None outstanding.

The increase in the interest rate, while advantageous to banks and other financial intermediaries, had numerous adverse effects. It increased costs substantially in the field of construction and among enterprises that use assets of long durability, the public utilities, for example. It placed in a

of reserve requirements. The selection mainly affects the earnings of the commercial banks, relative to those of the Federal Reserve, which are largely turned over to the Treasury. In the case of open-market purchases, the Treasury will share in the interest income which the Federal Reserve banks derive from the purchased securities. In the case of reduced reserve requirements, no such income accrues to the Federal Reserve banks or the Treasury, while the commercial banks, on the basis of a given amount of reserves, can increase their earning assets (loans and investments) and earnings.

precarious position many marginal borrowers, especially small business firms. It brought about a wholesale destruction of assets, with the prices of bonds, issued in the past and carrying lower rates of interest, declining so as to equate their effective yield with that of the newly issued bonds carrying higher rates of interest. This decline was especially abrupt in the

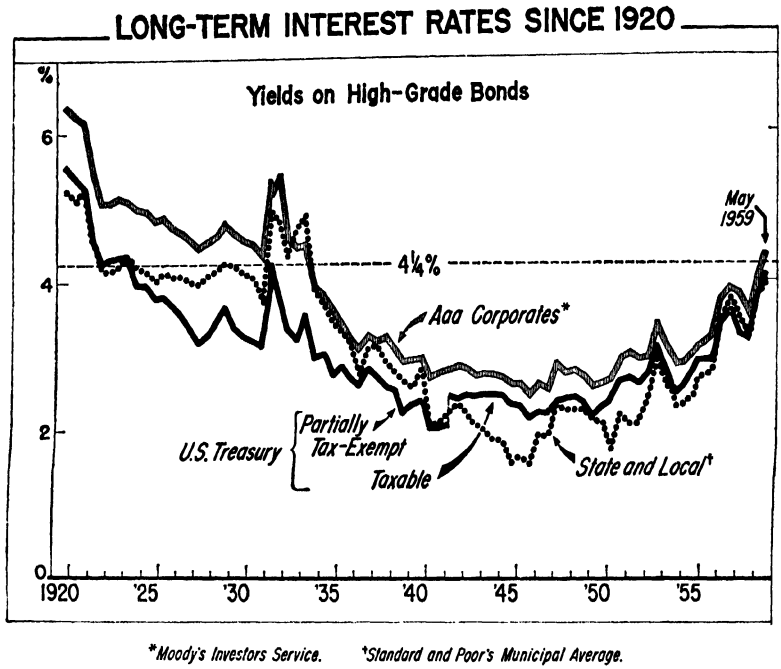

FIG. 25. Note the rising trend of interest rates after World War II. From Report of the Secretary of the Treasury, 1959, p. 252.

case of long-term government bonds; many such $1,000 bonds had fallen to $800 and less by 1960. The increase in interest rates also was responsible for making much more expensive the service of the federal debt. Although the great bulk of this had been incurred during World War II, a substantial part of it was—and is—of short and intermediate duration and had to be refinanced at higher rates of interest. Moreover, with interest rates on the rise for so many years, prudent lenders could not fail to anticipate a continuation of the movement in the time ahead. It thus became all but impossible to dispose of new issues of long-term bonds—potential lenders feared that before long interest rates would turn higher again, with adverse effects on the prices of the bonds then outstanding. When in April, 1960, the Treasury made an attempt to place $1.5 billion of a 25-year bond, carrying a rate of 4¼ per cent interest, only $370 million were sold. At that time the Treasury tried to persuade the Congress to raise the statutory interest ceil-

ing of 4¼ per cent on bonds of more than five years to maturity, but these efforts were resisted strongly.

Critics of the Federal Reserve and Treasury policy of dear money pointed out that interest income had risen by 120 per cent from 1952 to 1959, compared with an increase in all personal income amounting to only 36 per cent. Doubts were raised about the appropriateness of the practice of using as advisers on interest rates the representatives of financial institutions concerned with lending. Bills were introduced in the Congress that would give labor, small business, and the consumers representation on the Federal Reserve Board. It was recalled that the huge financial requirements of the government during World War II had been financed at low rates of interest. High rates of interest, such as prevailed during the 1950's, were held to have stunted economic growth. The question was raised why the monetary authorities, when they wanted to curb money and credit, failed to place greater reliance on increasing reserve requirements rather than on increasing rates of interest. Actually, as has been seen, the Federal Reserve lowered the legal reserve requirements while it raised the discount rate. This policy exposed the Federal Reserve to the criticism that it acted like a rider who makes his horse go into all possible directions at once.

Worse, the vacillations of Federal Reserve policy have not secured stable prices. During some periods of the 1950's price increases were rather pronounced, and for the decade as a whole consumer prices rose by more than 20 per cent. Worse still, the increase in prices occurred in the face of persistent unemployment, which only in one year fell to less than 3 per cent of the civilian labor force, in another year exceeded 6 per cent, and during four years was between 5 and 6 per cent.

To many students of the economy this combination of inflation and unemployment was an experience that made them doubt the suitability of monetary and credit policies as an instrument to attain stable prices. Such over-all policies of restraint are a blunt weapon when pursued in the face of widespread unused capacity as was the case in the 1950's.

Coping with Administered Wages and Prices. Many thoughtful observers were inclined to make a distinction between this new type of inflation, which is accompanied by unemployment and unused plant capacity, and the conventional type which occurs under full employment, when plentiful money chases after goods that cannot be produced. This conventional type of inflation, characteristic of the immediate postwar period, is also known as "demand" or "monetary" inflation. In contrast therewith, the new type of inflation was variously referred to as "sellers' " inflation or as one caused by a "wage push" or "cost push" or by "administered prices."

Indeed, during the 1950's there occurred an average increase of hourly earnings percentagewise approximately twice as large as the average increase in real product per man-hour. Wages, thus, rose much faster than did productivity. On the basis of this observation, it was claimed that a

new type of inflation had arisen, fundamentally different from the conventional one and to be treated by new policies. Made in this form, the claim, however, is half true and half false. It is false that the mechanism of wage-push inflation differs substantially from that of demand-pull inflation. In either case there is an increase in factor prices or costs, in income, and in product prices. The question as to whether factor prices or product prices increase first is about as meaningful as the question of the priority of the chicken or the egg. The reference to productivity lagging behind wages does not give support to the allegedly new character of wage-push inflation either. Such a lag is characteristic of any type of inflation, in fact, inflation could be defined as a rise in income faster than that of production.

While the mechanism of wage-push inflation thus does not differ substantially from demand-pull inflation, it may nevertheless be true that rapidly rising wages in the unionized as well as in the nonunionized sector of the labor force are inflationary in the sense that they add both to cost and to income. However, the responsibility for this cannot be placed on labor alone. Wages can go up only if employers fail to resist demands for a raise; in addition, the increase in the money supply required by rising wages must still be sanctioned by the monetary authorities. If an increase in wages is inflationary, the responsibility for this must be shared by labor, employers, and the monetary authorities.

That employers can grant inflationary raises in pay while at the same time failing to utilize their plant capacity, is a fact that has been attributed to the imperfection of competition characteristic of substantial parts of our economy. Under perfect competition, a firm does not have a price policy but is compelled by the forces of the market to adjust its price to that prevailing in the industry of which it is a member. If it cannot raise its product price, neither can it raise its cost by granting an increase in wages not justified by improved productivity. The combination of rising prices and wages in the face of persistent unemployment, so many observers hold, is due to monopoly power. Business firms which have such a power are in a position to charge unilaterally "administered" prices over and above the competitive one.[5] At these prices they are unable to dispose of their capacity output, but they are able to meet labor's demand for wages higher than warranted by the growth of productivity. As has been noted before (p. 73), the prices charged by corporations not only enable them to meet inflationary pay raises but are sufficiently high to facilitate business expansion out of retained earnings. The importance of this factor, in connection with inflationary tendencies, has recently been pointed out by the British Council on Prices, Productivity, and Income, the so-called Cohen Council.[6]

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[5] See Gardiner C. Means, *Administrative Inflation and Public Policy* (Washington, D.C.: Anderson Kramer Associates, 1959).

[6] Council on Prices, Productivity, and Incomes, *First Report* (London: Her Majesty's Stationery Office, 1958), p. 48.

Still another interpretation of current inflationary tendencies, and one which does not conflict with the ones discussed above, is based upon shifts in demand which cause reductions in output in some industries and increases in others. While prices rise among the latter, they fail to fall among the former owing to frictions and imperfections of the market. This type of inflation is sometimes referred to as "demand shift" inflation. It has been investigated by Professor Charles Schultze of the University of Indiana.[7]

The connection between wages and prices is also revealed in a study of the markup factor, the ratio of business gross revenue to the compensation of employees. This markup factor has been shown to be fairly constant over the years, averaging about 2. The price at which a firm sells can then be expressed as

$$\frac{\text{Markup} \times \text{Wage bill}}{\text{Average product per worker}}.$$

If the markup is kept constant, changing prices will reflect the disproportionate behavior of wages and productivity. If wages increase faster than productivity, prices will rise. If they increase more slowly than productivity, prices will fall. If they increase as fast as productivity, prices will be constant. This theory is connected with the name of Professor Sidney Weintraub of the University of Pennsylvania (for reference, see Bibliography, p. 177).

What can be done in this situation to assure stable prices and full employment? Some have proposed the regulation of administered prices by public authorities, especially in industries that operate below their capacity. Price regulation of a similar type is not unheard of but is a device of long standing in the arsenal of United States economic policy. It was first applied to some so-called "natural" monopolies, especially those whose monopolistic character tended to be strengthened by measures of public policy. Federal regulation of railroad rates was instituted in 1887; local regulation of public utilities had started much earlier. When utility systems expanded, state-wide regulation was provided by law beginning in New York and Wisconsin in 1907. Problems pertaining to the regulation of railroad and utility rates will be considered in Chapter 17. In a more indirect form, federal legislation has affected other monopolistic prices by aiming at restraint of monopolistic power. This is discussed in Chapter 15. In a still more indirect manner, prices are controlled, in a sense, by public enterprises which compete with private concerns of monopolistic character and thereby exert a wholesome influence on their price policies.

However, the regulation of administered prices would undoubtedly pose a host of administrative difficulties and may have undesirable conse-

[7] See "Recent Inflation in the United States," by Charles Schultze, *Study Paper* No. 1 of Joint Economic Committee investigation of "Employment, Growth and Price Levels," cited more fully in the Bibliography, p. 178.

quences in addition to those that are wanted. Unless the forces of unemployment and inflation become more menacing, it is unlikely that a program of regulating such prices will be instituted. This will mean that principal reliance will have to be placed on the vigorous execution of our antitrust laws (Chapter 15) and on instilling among corporate managers a feeling of public responsibility that will restrain their price policy in a similar fashion, it is hoped, as does the force of competition.

For the time being, such a happy state of affairs is far from being achieved. At times, employers will exhort unions to abstain from inflationary wage demands, and unions will exhort employers to abstain from inflationary increases in prices, each testifying to the respective power of the other party while failing to admit his own. In the case of unions, instilling them with a feeling of public responsibility for the stability of prices will be no easy accomplishment because historically their principal function has been to press for higher and higher wages. It is possible, however, that the frequently stated demands for public regulation of wages, for the removal of the exemption of unions from the antitrust laws, and for curbing the power of labor unions in general, will exert a wholesome influence upon union leaders in the direction of encouraging an attitude of restraint and responsibility.

The public regulation of wages is an undertaking that is, if possible, still more difficult than the public regulation of prices. The "right" price is the competitive one which would come about as the result of the operation of the impersonal forces of the market. But what is the right wage? Surely not the one that would come about in the absence of collective bargaining. What about a wage that increases commensurately with the productivity of labor? This is an idea that is often recommended in the popular discussion of these matters. But what does it mean? If it means that workers whose productivity rises at a fast rate are eligible for similar raises in their pay, such sectional increases in wages would soon spill over into employments where productivity fails to rise at all or does so at a slow rate. More and more inflation would be the outcome of such a wage policy. Moreover, the idea of linking wages closely with productivity has other, severe shortcomings. To allow for the allocation of productive resources in response to changing wants and needs, labor's wage must not only reflect changes in productivity but changes in demand as well. If the productivity of labor rises in employments where the demand for output fails to expand vigorously, raises in pay will only freeze labor along lines of work where job opportunities are severely limited. Coal mining is a case in point, and agriculture another, although in the case of agriculture it is not the increase in wages that is relevant but the stabilization of agricultural income with the help of a huge outlay of public funds.

The proposal to limit increases in wages to those in line with the overall increase in the average productivity observed for the whole nation takes

care of some of the objections listed in the preceding paragraph but not of all of them. Such an increase would not be inflationary, but it would still fail to reflect adequately changes in the demand for labor resulting from changes in the demand for products.

The problems which would face a regulatory authority in the field of wages could be resolved only with the help of a great deal of discretion, and the difficulties which would persist are kindred to those which thus far have prevented the adoption of compulsory arbitration (see p. 235).

Legislation has been introduced in the Congress requiring advance notice of proposed increases in wages and prices, with the view of having the question of their desirability aired before a body of competent experts and before the public in general. The pressure of public opinion, it is hoped, will be of help in averting inflationary movements of prices or wages.

Helpful along the same line would be periodic meetings of the leaders of industry and of labor in which they would become acquainted with and discuss the economic outlook for the period ahead, with the view of voluntarily shaping their policies in such a manner as not to cause inflation. Unions might consent to forego wage increases if employers undertake to lower prices in response to rising productivity, and such undertakings may fulfill a similar function as does the pressure of competition. As time goes by, employer representation may become an industry-wide one more often than it is now, and perhaps eventually labor and management may bargain on a nation-wide scale. In so shaping our institutions, we may possibly benefit from the experience of the Scandinavian countries such as Sweden, where arrangements of this type have been in use, and by benefiting from their experience we may avoid the mistakes which have been made there (from 1948 to 1957 the consumer price index in Sweden rose 46.8 per cent).

Demand-shift inflation could be restrained by granting tax benefits to those industries which abstain from using their reserves for expansion during periods of boom in their respective lines, and postpone investment until business activity slackens.

Lastly, anything that adds to the supply of goods will tend to diminish the strength of the forces of inflation. This means that improvements of the mobility of labor will be of considerable help as will anything that accelerates production. Some people might think that the lengthening of the workweek would provide a solution. This is true, however, only in those activities where output is significantly determined by standard hours of work—that is, neither in farming nor in the industries that operate around the clock on a continuous-process basis, as is done in the steel industry, the chemical industry, and in a number of others. Even in the absence of these limitations, longer hours of work will increase wage payments and thereby tend to cause a stimulation of demand. And if wage payments were not increased at all or only moderately (in consequence, for example, of provi-

sions relaxing legal requirements for overtime pay), the resulting reduction in labor cost would be most effective in checking the forces of inflation only if it were reflected in lower selling prices.

Measures designed to increase output per man-hour are thus, on the whole, preferable to longer hours of work. Without the absorption of additional resources (to increase the capital equipment and the like) output per man-hour can be raised by incentive systems of wage payment and by the elimination of make-work rules on which unions tend to insist for the sake of their members' protection during adverse periods of business. Moreover, it has been pointed out that "featherbedding is not confined to labor. Many American industries and firms do a bad or mediocre job of introducing new technology—and other productivity-increasing measures—into the production process."[8] To do an effective job of combating the forces of inflation, management must make the most of its opportunities to raise the productivity of the nation, and labor unions must not resist such efforts.

Equal in importance to additions in output are liberal foreign-trade policies that remove obstacles to the flow of imports. Not only do such policies increase the supply of goods, they also strengthen the forces of competition and are, hence, of extra efficiency in combating inflation. Whether policies of this kind will be pursued with vigor, will depend upon whether or not the threat constituted by the disequilibrium of the balance of international payments of the United States will continue to be imminent (see p. 592).

SUMMARY

Prices perform the twofold function of clearing the market and allocating goods and services. There is enough uniformity in price movements to warrant the formulation of the concept of a price level. War periods generally are characterized by peaks of prices, while they reach their trough during periods of depression. Price movements occur because of disproportionate developments of people's expenditures and the volume of goods and services available for purchase. People's ability to make expenditures is influenced by the ease with which the supply of money and credit is expanded.

The incidence of changing price levels falls in a different manner upon the various components of the economy. In modern societies, there is often a stronger complex of interests attached to rising than to falling price levels.

During the 1950's, stabilization policies had to cope with a situation in which rising prices were combined with persistent unemployment. The monetary and credit policies pursued during that period included an in-

[8] Walt W. Rostow in an address before the Thirtieth Annual Conference of the Harvard Business School Association, Cambridge, Mass., June 11, 1960.

crease in bank reserves and a reduction in legal reserve requirements, but these policies were paralleled by swiftly rising rates of interest. In addition to the conventional type of demand inflation, increasing attention is given to cost-push inflation.

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The Joint Economic Committee of the Congress has for some time given special attention to the problem of inflation. See "Relationship of Prices to Economic Stability and Growth," 85th Cong. 2nd sess., *Hearings*, 2 vols., and *Compendium of Papers* . . ., both published Washington, D.C., U.S. Government Printing Office, 1958. The most comprehensive discussion of the matter under study will be found in the same Committee's study of "Employment, Growth, and Price Levels," 1959–60, referred to above, p. 107. Virtually all of the thirteen volumes of *Hearings* and all of the 23 *Study Papers* contain relevant material. The following is a list of the *Hearings*: Part 1, "The American Economy: Problems and Prospects;" Part 2, "Historical and Comparative Rates of Production, Productivity, and Prices;" Part 3, "Historical and Comparative Rates of Labor Force, Employment, and Unemployment;" Part 4, "Influence on Prices of Changes in the Effective Supply of Money;" Part 5, "International Influences on the American Economy;" Parts 6A to 6C, "Government's Management of Its Monetary, Fiscal, and Debt Operations;" Part 7, "The Effect of

Monopolistic and Quasi-Monopolistic Practices Upon Prices, Profits, Production and Employment;" Part 8, "The Effect of Increases in Wages, Salaries, and the Prices of Personal Services, Together with Union and Professional Practices Upon Prices, Profits, Production and Employment;" Part 9A and 9B, "Constructive Suggestions for Reconciling and Simultaneously Obtaining the Three Objectives of Maximum Employment, an Adequate Rate of Growth, and Substantial Stability of the Price Level;" Part 10, "Additional Materials Submitted for the Record."

The titles and authors of the 23 *Study Papers* are: No. 1, "Recent Inflation in the United States," by Charles L. Schultze; Nos. 2 and 3, "Steel and the Postwar Inflation," by Otto Eckstein and Gary Fromm; "An Analysis of the Inflation in Machinery Prices," by Thomas A. Wilson; Nos. 4 and 5, "Analysis of the Rising Costs of Public Education," by Werner Z. Hirsch; "Trends in the Supply and Demand of Medical Care," by Markley Roberts; No. 6, "The Extent and Nature of Frictional Unemployment," by the Bureau of Labor Statistics; Nos. 7, 8, and 9, "The Incidence of Inflation: Or Who Gets Hurt," by Seymour E. Harris; "Protection Against Inflation," by H. S. Houthakker; "The Share of Wages and Salaries in Manufacturing Incomes, 1947–56," by Alfred H. Conrad; Nos. 10 and 11, "Potential Public Policies to Deal With Inflation Caused by Market Power," by Emmette S. Redford; "A Brief Interpretive Survey of Wage-Price Problems in Europe," by Mark W. Leiserson; Nos. 12 and 13, "The Low Income Population and Economic Growth," by Robert J. Lampman; "The Adequacy of Resources for Economic Growth in the United States," by Joseph L. Fisher and Edward Boorstein; Nos. 14 and 15; "Financial Aspects of Postwar Economic Developments in the United States," by John Gurley; "Profits, Profit Markups, and Productivity: An Examination of Corporate Behavior Since 1947," by Edwin Kuh; No. 16, "International Effects of U.S. Economic Policy," by Edward M. Bernstein; No. 17, "Prices and Costs in Manufacturing Industries," by Charles L. Schultze and Joseph L. Tryon; No. 18, "National Security and the American Economy in the 1960's," by Henry Rowen; No. 19, "Debt Management in the United States," by Warren L. Smith; No. 20, "The Potential Economic Growth of the United States," by James W. Knowles; No. 21, "Postwar Movement of Prices and Wages in Manufacturing Industries," by Harold M. Levinson; No. 22, "An Evaluation of Antitrust Policy: Its Relation to Economic Growth, Full Employment, and Prices," by Theodore J. Kreps; No. 23, "The Structure of Unemployment in Areas of Substantial Labor Surplus," by the Bureau of Labor Statistics. The *Hearings* and *Studies* Nos. 1 to 15 were published in 1959, the rest of the *Studies* in the following year, all by the U.S. Government Printing Office, Washington, D.C.

STUDY QUESTIONS

1. What is the difference between relative prices and the price level?
2. Compare the competitive price with the price arrived at under monopoly.
3. How are goods and services allocated under the price system?
4. Is consumer sovereignty absolute?
5. How are index numbers constructed?
6. What is meant by "escalator clauses"?
7. Why have escalator clauses come to be less widely used in recent years?
8. What are the two different meanings of "deflation"?
9. Why are wars usually associated with price upheavals?

10. What is the effect of rising prices upon the different groups of the population?
11. What is the difference between demand inflation and cost inflation?
12. What is the role ascribed to administered prices in the inflationary process?
13. Are we still living under conditions of inflation?
14. Does it happen that prices rise under conditions of unemployment, and if so, how can this be explained?
15. What are the views of Professor Weintraub regarding inflation?
16. During the 1950's, the Federal Reserve relaxed the legal reserve requirements, while interest rates moved upward. Comment on this policy.
17. What are the advantages and disadvantages of a policy of high interest rates?
18. What are the effects of rising interest rates on bond prices?
19. In what manner do high interest rates restrain economic growth?
20. Can inflation be prevented by means of monetary policy?

Chapter 9 THE STABILIZATION OF EMPLOYMENT

Inflation and unemployment are the principal afflictions that threaten the stability of modern economic society. The plague of mass unemployment which persisted during the thirties was relieved during World War II, only to be replaced by the unrest which attended the war and postwar boom of the forties and the cold war during the fifties. How long the prosperity would last, nobody could know for sure. Past experience teaches that boom conditions eventually revert into a depression: the higher the crest of the wave, the lower may be the impending downfall. Past experience, of course, is no infallible guide. If stimulated by appropriate conditions, inflationary pressure may persist for decades. Moreover the notion of an inevitable sequence of boom and bust was characteristic of a society that considered economic fluctuations as substantially beyond the limits of human control. Now, after the progress of economic science during the thirties and the growing belief, fallacious as it may be, that society is capable of mastering its own destiny, the forces of fatalism have somewhat weakened.

Not so very long ago, in 1933 to be exact, the number of unemployed in the United States constituted a staggering 25 per cent of the civilian labor force. During the early thirties there was, indeed, hardly any advanced industrial country where there was not approximately one unemployed for every three or four employed persons. Men who are out of work and cannot find jobs, not only suffer hardships and privations, but find themselves in a world where there seems to be no place for them. The system of values to which they had been attached, and in which material progress, the career, the home, and the security of the family ranked high, begins to topple. New and sinister values tend to take its place, to substitute for those which have become unattainable. Sustained mass unemployment thus creates conditions where every day is a field day for preachers of hatred:

hatred against the community or against other countries and races, and against individuals and groups in society which mountebanks have caused to appear guilty of the unemployed's plight. Mass unemployment becomes the breeding ground of revolutionary movements aiming at subversion of the millions, whose interest in the maintenance of the existing social order has become negative.

The problem of unemployment is thus an important problem of modern times. Its study cannot safely be postponed until the actual arrival of mass unemployment. Once a depression sets in, cumulative forces may have free play, making for its persistence and intensification. In the past, it has proved true that a fall in employment may occur at rapid speed over a relatively short period; while the subsequent recovery proceeded, at best, gradually and required long periods of time. The prevention of mass unemployment is thus a task that is even more rewarding than its cure.

The Employment Act of 1946. By passing the Employment Act of 1946, Congress has gone a step forward in placing responsibility for the promotion of "maximum employment" on the federal government. The principal innovations of this Act are in the field of policy declaration and administrative organization; more complete implementation remains the function of Congress and the President.

Under this legislation the President is instructed to submit to the Congress each January an Economic Report setting forth the levels of employment and related economic conditions and such programs and proposals as the President deems necessary for the attainment of what the Act calls maximum employment. This expression was selected in preference to the more strongly worded insistence of the original bill on "full" employment, on the right of all Americans to employment, and on the government's responsibility to provide expenditure if full employment cannot otherwise be achieved.

In the preparation of the Report the President is aided by a Council of Economic Advisers created by the Act. The Act also establishes in the Congress a Joint Economic Committee, consisting of eight senators and eight representatives, who are to make a continuing study of matters relating to the Economic Report. Not later than March 1 of each year the Committee files a report containing its findings and recommendations in response to those made in the President's Economic Report.

The organization of the Council ensures the sustained study of relevant economic variables by a body whose perspective is likely to be broader than that of the various specialized government departments which are concerned with economic affairs. The President's Economic Reports have become indispensable materials for the study of current economic problems. They contain, besides other pertinent information and analysis, the Nation's Economic Budget which was discussed on page 93. The work of the Joint Economic Committee, which at times has been headed by Senator Paul

Douglas of Illinois, an outstanding economist and former President of the American Economic Association, has proved of great value, especially at such times when the Chief Executive and the majority of the Congress belonged to different political parties. The Joint Economic Committee of the 86th Congress sponsored a far-reaching study of "Employment, Growth, and Price Levels," the most comprehensive investigation of the American economy since the memorable work of the Temporary National Economic Committee in the late 1930's.[1] Much of this study deals with problems to be discussed in the present chapter.

UNEMPLOYMENT AND FULL EMPLOYMENT

Unemployment Defined. The formulation of an acceptable definition of unemployment is no easy task. Unless proper care is taken the definition is liable to include among the unemployed the millionaire who would be willing to accept a job if the reward were a multiple of the going rate. What matters in this context is the involuntary character of unemployment. But when is unemployment involuntary and when voluntary? It makes little sense to characterize as voluntary any sort of unemployed status that could be terminated if the unemployed were to reduce the price he asks for his labor. Institutional arrangements like minimum wage laws and collective bargaining have much reduced the significance of the individual wage bargain. To the worker, it seems that outside forces over which he has only indirect control set his wages and working conditions, which he must take or leave.

It is also by no means certain that it would be always possible for a given number of unemployed persons to find jobs if only they had the power to reduce their wages and were willing to do so. For these reasons, unemployment preferably is defined as a situation in which people are willing to accept employment at going wage rates but are unable to obtain it. Their situation may be one of partial employment and partial unemployment if they would want to work longer than the actual hours but cannot find such employment.

It goes without saying that workers, to be considered unemployed, must be potentially employable; i.e., there must be no obstacle grounded in their personal characteristics, such as defective health or overage, which would make them ineligible for employment.

Types of Unemployment. Unemployment may be frictional, seasonal, technological, structural, or cyclical. Persons who are on the move from one job to the next account for a good deal of the volume of statistical "unemployment" in normal times. Unemployment of this type is often referred to as "frictional." It generally absorbs 2 to 4 per cent of the civilian labor force, or 1½ to 3 million people in the United States.

[1] See p. 177 for a list of the *Hearings* and *Study Papers*.

Seasonal unemployment, which periodically recurs during certain months, prevails primarily in a number of agricultural occupations but can also be found in manufacturing and construction work. In the shoe industry, for example, seasonal unemployment is created by the practice of salesmen of loading a whole season's stock upon the wholesalers at the beginning of each of the two selling seasons, with the hope of frustrating sales of competing manufacturers.

Technological unemployment, as has been seen, occurs under the influence of technological advances which cause specific productive processes or industries to become obsolete or overloaded with workers. Technological unemployment may fall upon "blighted areas" with the subsequent emergence of "ghost towns," or it may hit specific occupations which are more widely dispersed geographically. It generally causes a depreciation of invested capital as well as of workers' skill, and the ensuing economic decay may extend to other groups catering to those which are directly affected.

Structural unemployment arises as a consequence of structural changes in the economies of certain regions or industries. Such changes may occur as a result of shifts in demand, or they may be caused by technological advances, in which case technological and structural unemployment overlap. Illustrations of structural unemployment are offered by coal-mining regions and by industries adversely affected by changes in defense requirements.

Cyclical, or depression, unemployment follows upon a boom, or prosperity, period. It is generally characterized by a shrinkage of the volume of investment that is percentagewise more severe than that of consumption or the national income. It is this type of unemployment which may degenerate into mass unemployment.

In addition to the types of unemployment discussed here, use is also made of the term "disguised" unemployment. Disguised unemployment, however, does not refer to people that are out of jobs but to people that are employed in jobs that fail to utilize their full capacity with the result that their productivity is a very low one. Examples may be found among our own subsistence farmers as well as in underdeveloped countries with a high ratio of population to land and capital.

Unemployment Statistics. Since World War II, the Bureau of the Census and the Department of Labor have published estimates of the number of unemployed, based on monthly interviews of a cross-section of the population. These data, and estimates for earlier years, are reproduced in Table 11.

The dates presented in this table indicate that even at good times the people who are on the move to new jobs, as well as the seasonally and technologically unemployed, account for a volume of statistical unemployment that may go into the millions. With the growth of population and the labor force, the number of such people is bound to increase. For the first

TABLE 11

ESTIMATED NUMBER OF UNEMPLOYED PERSONS 14 YEARS AND OVER, MONTHLY AVERAGE, 1929–59, IN THOUSANDS*

Year	*Unemployed*
1929	1,550
1930	4,340
1931	4,320
1932	12,060
1933	12,830
1934	11,340
1935	10,610
1936	9,030
1937	7,700
1938	10,390
1939	9,480
1940	8,120
1941	5,560
1942	2,660
1943	1,070
1944	670
1945	1,040
1946	2,273
1947†	2,356
1948	2,325
1949	3,682
1950	3,351
1951	2,099
1952	1,932
1953	1,870
1954	3,578
1955	2,904
1956	2,822
1957	2,936
1958	4,681
1959	3,813

* *Economic Report of the President*, January, 1960 (Washington, D.C.: U.S. Government Printing Office, 1960), p. 174.

† Definition revised to include about 200,000 to 300,000 persons on layoff or waiting to start new jobs.

decade of the twentieth century the National Industrial Conference Board lists four years with 1 to 2 million unemployed and one year with over 2 million. From 1910 to 1916, there were two years with 1 to 2 million and another two with over 2 million. From 1920 to 1929, 1 to 2 million are estimated for two years, 2 to 3 million for another two years, and 4 to 5 million for one year.[2] There were thus, during the first three decades of the twentieth century, fourteen years with unemployment, in the statistical sense of the term, in excess of one million. During the fourth decade, how-

[2]National Industrial Conference Board, *The Economic Almanac for 1945–46* (New York, 1945), p. 38.

ever, the number of unemployed was only once or twice, depending upon the statistics used, below eight millions.

A fall in unemployment close to the level of the twenties did not occur until the country was engulfed in world-wide warfare. Unemployment continued to be low during the postwar years, reaching a 3-million mark only in 1949 and 1950. During the early 1950's, when the country was engaged in the Korean War, it fell again to a level between 1½ and 2 million. Early in 1954, however, unemployment figures shot up, and they did so again in 1958, only slowly to recede during the following year. In 1958, the unemployed constituted 6.8 per cent of the civilian labor force, more than in any year since 1941. The problem of unemployment had again become a public concern (see Fig. 26).

Who are the unemployed? It seems that the brunt of recession unemployment is borne by young workers and by Negroes. Young workers are liable to lose their jobs ahead of others because of union seniority rules. These rules generally provide that those hired last are to be laid off first. Negroes often fail to be protected by seniority rules because they are kept out of many unions, and if they have joined them, may have done so only lately. As the young are especially exposed to the threat of unemployment, the position of heads of families is in general a better one. Being older and having a higher seniority, they tend to hold on to their jobs longer.

Full Employment versus Abolition of Mass Unemployment. While there is universal agreement about the undesirability of mass unemployment, the formulation, in more positive language, of the full-employment goal has caused some measure of confusion. To the serious student, this goal never implies the complete elimination of seasonal and technological unemployment and of the status of those who are on the move to new jobs. Nor was such an interpretation intended by Lord Beveridge, the man who made the phrase "full employment" popular.[3]

The plea for full employment is generally presented by those who are most deeply impressed by the menace of unemployment and who, therefore, do not shy from recommendations of cures that to others may sound radical. Those who simply advocate the abolition of mass unemployment tend to be more moderate. It is also important that the phrase, "full employment," even in its restricted meaning, carries connotations that do not meet a universally favorable response. Does it not, so people ask, imply a reorganization of society, a surrender of the whips of greed and need? Under full employment, the labor market tends to be a seller's market. Will this be conducive to efficiency and sustain effort? Some will say, "yes," insisting that "the essence of civilization is that men should come to be led more by hope and ambition and example and less by fear."[4] But others will reply

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[3] William H. Beveridge, *Full Employment in a Free Society* (New York: W. W. Norton & Co., 1945), p. 18.

[4] *Ibid.*, p. 198.

EMPLOYMENT AND UNEMPLOYMENT

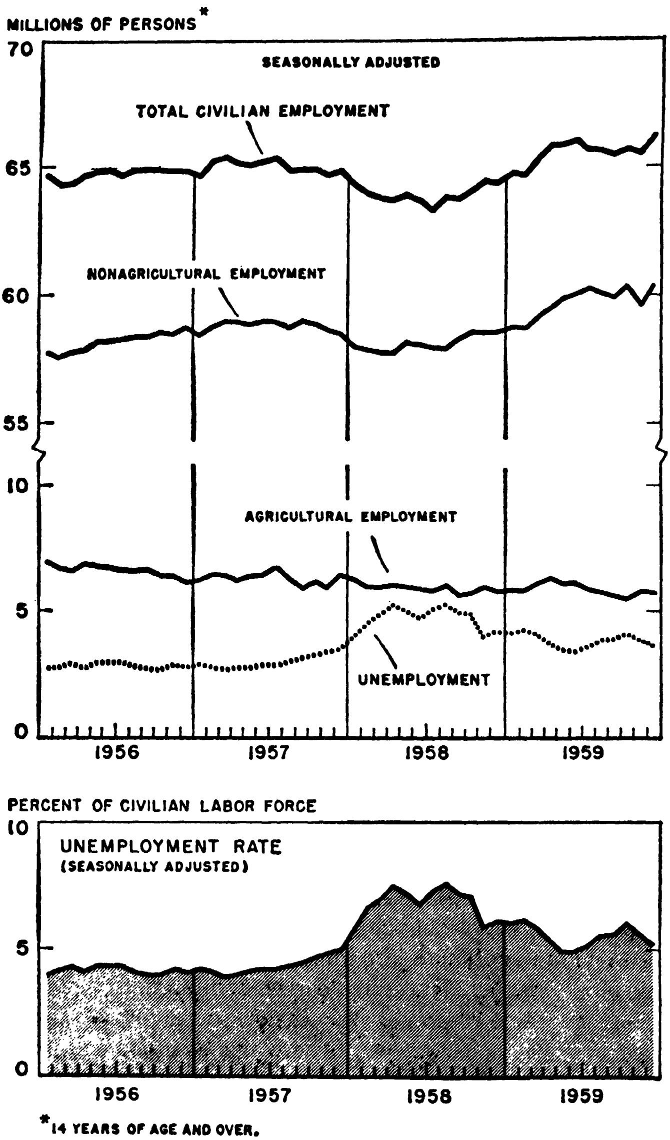

FIG. 26. The number of young people reaching 18 each year is increasing from 2.6 million in 1960 to 3.8 million in 1965. Some of them go to college; others are ready to enter the labor force. As they find jobs, civilian employment increases, as it did in 1959. Note the decline in agricultural employment and the rise in unemployment, which in the late 1950's exceeded 5 per cent of the civilian labor force. From *Economic Report of the President*, January, 1960, p. 13.

that "collective bargaining with strong unions, price stability, and full employment are incompatible. We can have any two of these, but not all three. So long as union power is not dampened down by unemployment there is no apparent power in the state strong enough to check a parallel upward sweep of wages and prices."[5] Nobody can say whether this statement will hold true under any and all conditions. The experience of the recent decades made many throughful people despair of the possibility of reconciling full employment with price stability. It may be true, as has been suggested, that money wages tend to be stable at a level of unemployment that is unacceptable to many—say, at 8 per cent of the labor force, whereas at an unemployment level of 5 to 6 per cent prices may rise 2 to 3 per cent per year.[6] Apparently we have as yet not forged appropriate institutions and policies for the avoidance of both inflation and unemployment. Such institutions and polices can only develop on the basis of a theory of employment that takes all the relevant variables adequately into account.

THE THEORY OF EMPLOYMENT

The theory of employment enables us to identify and measure the forces that, at a given time, determine the level of employment. To formulate such a theory, we must weave together various strands of thoughts that have occupied us in preceding chapters. The theory of employment is most conveniently expressed in the form of a theory of total output or production, although output and employment do not move at exactly the same rates. It is generally true, however, that as long as there are unutilized resources, the growth of output goes with increasing employment and the decline in output with a reduction of it.

The National Output. The various concepts of national output, or production, or income, have been defined, in Chapter 5, either as aggregate goods and services produced during a period of time or as aggregate receipts that accrue during such a period. Both aggregates are equal: the factors of production co-operate in the production of total output, and the latter is distributed among them in the form of incomes. The identity of output and the sum total of the distributive shares would be still more obvious if our economy were not characterized by the all-pervading phenomenon of exchange. Producers rarely consume what they produce, and consumers seldom produce what they consume. Producers exchange goods and services for money and use the receipts for the acquisition of goods and services

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[5] Charles O. Hardy, *Prices, Wages and Employment* (Board of Governors of the Federal Reserve System, Postwar Economic Studies, No. 4) (Washington, D.C., 1946), p. 24. For another critical discussion of the notion of full employment, the reader may consult Lionel Robbins, *The Economist in the Twentieth Century* (New York: St. Martin's Press, 1954), pp. 18–40.

[6] Paul A. Samuelson and Robert M. Solow, "Analytical Aspects of Anti-Inflation Policy," *American Economic Review*, Vol. L, No. 2 (May, 1960), p. 189.

produced by others. But it is neverless true that the value of aggregate net production is equal to the value of aggregate rewards going to the productive factors.

All production falls into either one of two classes, producer goods and consumer goods. And all expenditure is made for either one of two purposes, for consumption or investment. Expenditures for consumer goods are equal to the value of consumer goods production; and investment expenditure, in turn, is equal to the value of producer goods production. The income produced, or total net output of consumer and producer goods, is equal to aggregate expenditures for consumption and net investment. Everybody's income is somebody else's expenditure.

Total output is thus determined by consumption and investment expenditures. Of the two, consumption expenditure, though much larger, is percentagewise the more stable element throughout good and adverse times; while investment expenditure tends percentagewise to fluctuate more violently, falling rapidly during depression and rising vigorously during periods of prosperity. Consumer expenditure follows, more or less closely, the movements of income, while the more restless behavior of investment expenditure demonstrates the autonomous character of investment decisions.

Investment. Investment decisions reflect the volume of money and credit available to prospective investors, the cost of using money or credit, and the prevailing mood of the business community. If there is widespread confidence in the profitability of anticipated business ventures, if inventories are exhausted, if prices rise, investment is stimulated. Much thus depends upon expectations of the future course of business. In part the latter is determined by the current experiences of businessmen, but important also are future tax policies and such autonomous factors as foreign demand, political constellations, and military requirements.

The Rate of Interest. In the past, considerable emphasis was placed on the role of the interest rate as regulator of investment, and it was held that a sufficiently low rate would produce adequate stimulation of investment. At the present time many economists have become doubtful about the validity of this overconfident view. It it true that high interest rates will tend to deter investment, because anticipated earnings must be large enough to cover interest payments. But low rates of interest, while necessary for the encouragement of investment, are in themselves not sufficient. They tend to stimulate investment only to the extent to which expectations are favorable enough to make adequate earnings seem plausible. Even if the rate of interest would fall to zero, this would promote investment only if anticipated earnings are positive.

In any event the importance of the interest rate is more pronounced in certain sectors of the economy than in others. When calculating the effects of variations of the interest rate on their business, not all firms have to use

equally finely sharpened pencils. Obviously, in such fields as construction, transportation, and public utilities, where the life of the investment is extremely long, even small variations of the interest rate may require large-scale revisions of business plans. It is different in the field of distribution and in many branches of manufacturing. Moreover interest rate variations have little or no effect on the accumulation of inventories, on consumer installment credit, and on many speculative activities. Many business concerns thus are liable to attach greater importance to the anticipated behavior of prices than to the interest rate.

Savings. How do savings fit into the picture of the national income as determined by investment and consumption expenditures? For society as a whole the value of savings is equal to the value of investments. Society can make savings only in the form of additions to it's stock of capital. The goods which society does not consume it saves, that is, invests.

Individuals, however, may save (not consume) part of their incomes without investing them. This will generally be the case, because in our society saving and investing are functions normally fulfilled by different persons. As discussed elsewhere, intermediary institutions like insurance companies have arisen that have done much to relieve individual savers from the need to arrange for investments. Current personal savings are, to a relatively small extent only, used for the acquisition of equities but instead are channeled to institutional investors. From 1955 to 1959, for example, financial saving by individuals increased on the average by $14 billion per year, whereas individual holdings of corporate securities—equities and bonds—increased only by an average of $2 billion per year. Conversely, as has been seen (see p. 73), corporations finance the bulk of their new investment from internal sources—retained earnings resulting from a payout of dividends of approximately only 50 per cent of corporate earnings after taxes.

In relation to the level of output and employment, the strategic act is the positive act of investing (producing capital goods), not the merely negative one of saving (abstaining from consumption). If the rate of investment increases while resources are idle, this leads, via the multiplier, to a rise in incomes. Out of the larger incomes, more money is saved till savings are lifted to the new level of investment. But if, at a given level of income and investment, some individuals increase their savings, this, via a downward multiplier engendered by the reduction of people's expenditures, causes a fall in the income of others enough to make savings shrink so that in the aggregate they are again equated with investment. For society as a whole, there can be no saving without investment and no investment without saving. But while the attempt to lift investment automatically pulls up savings, the attempt to lift saving is abortive unless investment is raised at the same rate.

Income and Employment. We are now in the position to define more

sharply the relation between income and employment. Depression unemployment is the outcome of a reducton of investment and/or consumption below the level required for the maintenance of full employment. Mass unemployment, such as existed during the thirties, was characterized by a fall of consumption, in real terms, by about 20 per cent and a decline in net investment amounting to over 100 per cent in some years. During the Great Depression, there occurred not only a cessation of new investment but there was real disinvestment, or capital consumption, due to depletion of inventories and inadequate provisions for the maintenance of the existing stock of capital. During the relatively light postwar recessions the decline of investment was considerably less abrupt, while consumption declined barely at all (see p. 114).

THE PREVENTION AND CURE OF UNEMPLOYMENT

In the light of the preceding analysis, it seems obvious that policies designed to maintain or achieve full employment must aim at the stimulation of the rate of investment and/or the rate of consumption. While such measures will relieve in the first line cyclical, or depression, unemployment, they also will go a long way in keeping other types of unempoyment down. If the demand for labor is brisk, few will suffer from seasonal or technological unemployment. The utilization of available employment opportunities is further facilitated by measures designed to improve the mobility of labor. This may be accomplished by means of employment services and training facilities.

Full-employment policies may be distinguished in accordance with the private or public character of the agency that is responsible for them. Annual wage plans and supplemental unemployment benefits, for example, are sponsored by private business firms, while unemployment relief is granted by the government. They may further be distinguished with respect to the group of persons which is primarily affected by them. Unemployment insurance and public assistance, for example, are provided directly for the unemployed; the purchasing power with which they are equipped will then be diffused throughout the economy. On the other hand, fical and monetary policies operate on a very general level; they affect only incidentally or indirectly those who already are out of a job or are threatened by its loss.

Annual Wage Plans. In industries which are subject to seasonal fluctuations of employment, the burden of maintaining workers during slack periods is often transferred to the community at large. Stabilizaton of wage payments to ensure earnings throughout the year is highly desirable. Annual wage plans are designed to bring about such stability.

Annual wages are paid by a number of pioneering enterprises. The security provided by the arrangement is likely to reduce labor turnover and

thereby stimulates productivity. Regularization of production may also result in economies in the use of capital and other cost reductions. Annual wage plans were first introduced by employers after World War I. While at that time the response of organized labor to them was lacking in enthusiasm, more recently they have come to be widely supported by labor leaders and trade-unions.

The three annual wage plans that are best known are those of the Hormel meat-packing concern, the Procter & Gamble soap producers, and the Nunn-Bush Shoe Company. Under the Hormel plan, every worker is assured fifty-two paychecks per year; their content, however, may well vary, depending, as it does, on the number of working hours per week. Under this arrangement the worker foregoes the time and one half overtime pay generally provided by federal legislation.

Where annual wages are agreed upon in free collective bargaining, the presumption is justified that they are helpful to workers and the enterprise. The conditions that surround each business are so diverse, however, that the general introduction of annual wages would be unwarranted. In lines of business that are not suited for the arrangement, fixed charges would be unduly increased, and investment might be discouraged. Moreover, annual wage plans are unsuited for declining industries, since they might obstruct the movement of workers into more highly productive employments elsewhere. There are doubts, also, about their suitability for industries characterized by large technological changes.

The annual wage plan is no over-all cure of adverse business fluctuatoins. During periods of depression when the volume of business shrinks, annual wage payments do not reflect maintenance or expansion of employment; they would do this only if they were financed out of business savings or government contributions. In practice, no firm will pay out an amount of annual wages in excess of that warranted by prevailing business conditions. In consequence, there is only little stimulation of aggregate consumption by means of annual wages during a depression; there might actually be an unfavorable influence on investments should annual wage commitments be imposed upon businesses for which they are not suited.

Supplemental Unemployment Benefits. These and similar objections to the spread of annual wage plans were overcome in part at least by the development of a new device to stabilize labor income, known as supplemental unemployment benefits or SUB.[7] The supplemental unemployment benefit plans are the modern form of the annual wage. They were developed in 1955 by the United Automobile Workers and five years later covered well over two million workers in the automobile, steel, aluminum, rubber, agricultural equipment, can, and other industries.

[7] "Supplemental Unemployment Benefits," AFL-CIO, *Collective Bargaining Report*, Vol. III, No. 12 (December, 1958), pp. 73 ff.

The plans provide for employer contributions—of usually 5 cents per hour—which are paid into a fund designed to supplement an unemployed worker's unemployment compensation benefits—which are paid by the states (see p. 194)—up to, say, 65 per cent of his take-home pay. To be eligible for supplemental benefits, a worker usually must qualify for unemployment compensation. The maximum supplemental benefit is $25–30 a week. The duration of the supplemental benefit payments depends upon the number of "credits" the worker has accumulated, the amount of money in the fund, and his seniority. Usually the duration is limited to 39 or 52 weeks.

When these plans were introduced, the question arose whether the state authorities in charge of unemployment compensation would consider a worker who receives supplemental compensation as "unemployed" and eligible for unemployment compensation. In the large majority of the states this question has been decided in the affirmative.

Supplemental unemployment benefit plans had their first substantial test during the recession of 1958, when they proved their worth to employees, employers, and many local communities. Only in a few cases, and especially when the plan was only recently initiated, did the funds prove insufficient to meet the heavy drain to which they were exposed during the recession. In these cases benefit amounts or their duration had to be cut back in accordance with prearranged schedules.

The accumulation of the funds during periods of prosperity and their distribution during recessions aid in dampening the boom and in increasing consumption during periods of adversity. Moreover, the plans provide an incentive to management to stabilize and regularize employment. This is so because employer contributions to the funds come to a stop when the amount in the funds reaches a certain maximum. Hence, some employers revised their work schedules to minimize the number of layoffs lest the funds be depleted by benefit payments.

As presently available, the supplemental unemployment benefit plans, useful as they are, give financial support to only a relatively small number of employees of large, financially strong concerns.

Improving the Mobility of Labor. All types of unemployment will tend to be relieved by provisions designed to stimulate the mobility of labor and make it aware of available job opportunities. It goes without saying, however, that severe cyclical unemployment cannot be prevented or eliminated in this way and that the wholesome effects of these arrangements are more noticeable in the case of seasonal and technological unemployment.

Public employment offices had been maintained by a few municipalities as early as during the nineteenth century. Gradually, a number of states had begun to operate employment services when in 1918 the special conditions of the time led to the formation of a national organization, the

United States Employment Service. After the end of the war period, this agency was again overshadowed by the activities of state organizations. Later during the Great Depression, unemployment became a national problem just as the labor shortage had been during the war. The federal service was then greatly expanded and its functions reorganized. Under the Wagner-Peyser Act of 1933, federal grants-in-aid were authorized to state employment services, provided they affiliated with the United States Employment Service and measured up to certain administrative standards. This is, in substance, the organization of the employment service today, after a wartime interlude of federalization of the state employment services. The local offices of the service keep themselves informed about employment opportunities in the locality and elsewhere. Unemployed persons register with them, and prospective employers apply to them when they are in need of additional workers. In an average year, the service fills over 14 million job openings, the bulk in agriculture and 5 to 6 million in nonagricultural fields of employment.

Providing Training Facilities. Unemployment is also checked by adequate facilities for training and retraining. Although all types of unemployment will be affected by such arrangements, the principal effect will be on technological unemployment. If workers are given the opportunity of acquiring new skills, they will not persist in an attachment to declining industries.

Public activities designed to provide retraining were promoted on a large scale during World War II, when the conversion to wartime production required the acquisition of many new skills on the part of the workers. It is doubtful whether private initiative alone can provide for adequate training and retraining. Firms generally are inclined to avoid disbursements from which a return can only be expected with a low degree of certainty. Benefits from expenditure for training may not always accrue to the concern which incurred it; because workers, after having been trained, are at liberty to seek employment with other concerns. These will then derive benefits from the disbursements made by the former employers.

Considerations of this sort may have a restraining effect on a firm's willingness to make elaborate provisions for training. Attitudes, however, vary, depending upon the level of business activity. During boom times, when labor is scarce, training facilities must be provided exactly because turnover then is especially pronounced. But during periods of slack, when voluntary turnover is low, there is less incentive to provide such facilities, although from the point of view of the workers, they may then be most badly needed.

Public training facilities are furnished nearly exclusively to veterans only. Apart from these, adult persons must rely on such opportunities as are provided in the vocational schools of the municipalities. In some states, there are also apprentice training programs in conjunction with vocational

education, a type of work first developed in Wisconsin. The United States Department of Labor assists these states in the formation of standards of apprenticeship, the development of apprenticeship indenture contracts, and the supervision of the training received by the indentured apprentices.

Unemployment Compensation. If unemployment persists long enough to cause the financial destitution of the people concerned, these then become a charge on the local relief agencies. However, during protracted periods of severe depressions the basis of these agencies' revenues proves too narrow to enable them to provide adequate relief. Unemployment compensation was thus conceived as a stop-gap that would delay the full impact of unemployment upon local finances. But this is not the only function of unemployment compensation. As the compensation benefits, when spent by the unemployed, become income of other persons, some degree of stimulation is in this way felt throughout the whole economy. This presupposes that the funds paid out as benefits are not raised by current taxes or contributions. Deficient demand is thus lifted, and fuller employment encouraged. As will be seen later, some authorities postulated still another function of unemployment compensation: by modifying the compensation system in certain respects, it was intended to serve as incentive to individual employers to provide stable employment. Unemployment compensation is sometimes referred to as unemployment insurance. The use of the term "insurance" is not entirely appropriate, however, because unemployment is not an insurable risk.

Unemployment compensation was introduced first in Wisconsin in 1932. In subsequent years the passage of unemployment insurance legislation was stimulated in all states by the Social Security Act of 1935. This Act imposed on employers a tax of 3 per cent of the payroll. State legislation was encouraged by granting employers paying an unemployment compensation tax to a state the right to offset the state tax against the federal tax up to 90 per cent of the latter. The states generally adopted a tax rate of 2.7 per cent, leaving an effective federal tax rate of 0.3 per cent. A further incentive to state legislation was provided by the assumption, on the part of the nation, of the administrative expenses incurred by the operation of the state compensation systems. State legislation and administration must measure up to certain standards defined in the Social Security Act if these benefits are claimed.

The offset provisions were later amended, making possible the gradual reduction of state tax rates—to an average of about 1 per cent in the late 1950's—while the federal tax rate of 0.3 per cent was retained. As the yield of the federal tax barely sufficed to cover federal disbursements in aid of state systems, it was raised to 0.4 per cent in 1960.

By providing for a uniform, nation-wide tax on payrolls, the federal legislator intended to remove the principal obstacle which in earlier times had discouraged all but one state from adopting unemployment compensa-

tion legislation. This obstacle was the comparative disadvantage at which business would find itself in a state where it had to incur expenses for unemployment compensation which would not burden business in other states.

The coverage of unemployment compensation has been gradually extended and now includes, together with special programs for railroad workers and federal employees, more than four fifths of nonagricultural wage and salary workers. Still excluded are workers in small firms with less than four employees as well as those employed by nonprofit organizations and certain federal instrumentalities. The extension of the system to cover these people is probably only a question of time; such an extension was recommended, for example, in the President's *Economic Report* of January, 1960. Originally, the coverage was much more restricted owing to administrative difficulties that the wider coverage of an untried system would create. With the passage of time and the growth of experience with social insurance, more and more groups were included, leaving only a few outside of the system. A very important gap which continues to exist is the exclusion of agricultural workers. Because of the irregular character of their employment, which often is limited in time and involves a number of different employers, it has for long been considered unsuited for unemployment compensation. However, unemployment compensation for agricultural workers is provided in the state of Hawaii, and its initiation is under study in other states and by the federal government.

The number of people receiving benefit payments, varying, as it does, with the level of employment, fluctuates considerably. From 1955 to 1957, there were 4½ to 5½ million such people per year; in the recession year of 1958, their number went up to close to 8 million. Average weekly benefit payments were approximately $30 in 1960, about three times as much as twenty years earlier. These benefits are paid out of separate reserve funds maintained for each of the states. During the war boom of the early 1940's the income of the funds was considerably larger than the benefit payments; in the later 1940's and 1950's payments exceeded income, expect for two years, and during the recession years of 1949, 1954, and 1958 they were two to three times larger than income. Some $7 billion had been accumulated in the funds by 1960. The reserve funds are adequate in the aggregate, but this is not true of each fund for each state. In some of them the rising amount of benefit payments made during the 1958 recession exposed the funds to such a drain that the federal government had to come to their assistance with a loan program going into several $100 million.

Unemployment compensation benefits are claimed as a matter of right; the beneficiary must not undergo a means test designed to ascertain his need. While the unemployed, to be eligible to receive benefit payments, must be able and willing to accept employment, the federal legislator insists that benefits cannot be denied if the available job is unsuited for the follow-

ing reasons: (1) the position is open because of a labor dispute; (2) working conditions of the vacant position are substantially below standards; (3) acceptance of the job would require joining a company union or resigning from, or refraining from joining, a genuine labor union.

Other important matters are determined by state legislation, especially the amount of weekly benefit payments, their duration, and the preceding period of waiting. Weekly benefits are a fraction of past wages. When the system was established, the aim was to make benefit payments equal to at least 50 per cent of wages. This goal has been frequently restated in the *Economic Reports* of the President during the 1950's, when the average of such payments was closer to 30 than to 50 per cent. The states have responded to these recommendations only haltingly, although some progress was noticeable by 1960. At that time, fourteen states—compared with seven in 1957—provided for weekly benefit payments up to 50 per cent or more of average weekly wages. Almost one quarter of all insured workers reside in these states. Weekly benefits were then $40 or more in one third of the states, comprising almost one half of all insured workers in the country.

There is a waiting period of usually one week. As to the duration of benefit payments, the goal, as set forth in the President's *Economic Reports* of the 1950's, is one of 26 weeks. This is the standard, as of 1960, only in seven states, although some 37 states—compared with 25 in 1957—allow a maximum of 26 or more weeks. Actual duration is much below the theoretical maximum.

The great majority of all states withhold benefits from employees who are on strike. Some do the same with respect to nonstrikers who are laid off on account of a strike. In most states, benefits are curtailed, postponed, or denied if the unemployed has left his job voluntarily without good cause or is discharged for misconduct.

Merit, or experience, rating is a form of incentive taxation originally designed to encourage the individual employer to provide stable employment. As a rule the state compensation system works with individual reserve accounts for each employer. Current tax rates then reflect the size of his reserve. The tax rates thus may vary widely not only between different states but also between different employers of the same state. A number of states have provisions for above-standard rates in excess of 2.7 per cent. Rhode Island, with large numbers of unemployed, has for years collected the full 2.7 per cent; in other states, tax rates have been as low as 0.5 per cent. Within a state, the tax rate may be zero for some employers and positive for others. Usually the levy is on the first $3,000 of wages.

Although all states have introduced merit rating in one form or other, this modification has proved of dubious value. Merit rating has brought about the substantial reduction of state tax rates—from an average of 2.7 in the late 1930's to an average of 1.3 per cent in the 1950's. This has been the

result not so much of the desire of inspired employers to regularize employment but of the high level of economic activity, combined with little or no unemployment during the 1940's, and of inadequate benefits during the 1950's. The individual employer's ability to stabilize employment in the face of a recession is extremely limited. Moreover, merit rating discriminates against indutries that are subject to fluctuating demand for their products. It may discourage expansion when employers are doubtful about the enduring character of the additional employment they would want to provide. It tends to impose relatively heavy burdens on employers in bad times, while it relaxes them during periods of prosperity. It has given rise to hiring practices designed to reduce tax rates by not employing compensable workers and has imposed suffering on unemployed workers whose compensation claims were resisted by employers eager to keep high reserves.

The main argument in favor of merit rating has shifted from stabilization of employment to encouraging employer interest and policing. Employers, it is said, whose own pocketbook is directly affected will do their best to prevent unjustified compensation claims. Merit rating, however, has brought many inequities and has provided an inducement to employers to resist the liberalization of benefits which would be liable to raise the low average tax rate. For this reason, it has become an important political issue between employers and unions in the legislatures of a number of states.

The variations of the tax rates charged in the different states have given those with low rates a competitive advantage in attracting industry, and this has further strengthened the argument of those opposed to the liberalization of benefits. It seems, however, that the experience during the recession of 1958 has impressed people with the great advantages which a community will derive from the maintenance of an adequate fraction of the buying power of its citizens in the face of economic adversity. As has been seen, benefits were liberalized in a number of states during the years which followed upon this recession.

The preceding discussion of the unemployment compensation system has brought out the issues most prominent in current debates. They include merit rating, extension of coverage and duration, adequacy of benefits as well as the fundamental structure of the system.

Legislation was introduced in Congress in 1959 to require the states to comply with federal standards relating mainly to improved benefits and longer duration of the benefits, but this legislation failed to pass.

As it stands now, the most dubious part of the system is the limited duration of the benefits which it provides. Indeed, during the recession of 1958, the Congress enacted a temporary program of federal aid under which funds were made available to the states to enable them to continue payments for half again as long a period as established under the state law.

In other words, where a state law allows benefit payments for 25 weeks, these would be supplemented by another 12½ weeks.

This innovation, temporary as it was, brought into sharper relief the peculiar division which at present separates unemployment compensation from relief. Obviously, in a severe recession with protracted mass unemployment the duration of unemployment compensation benefits, as they are provided under existing legislation, is entirely inadequate to carry the worker over the period of hard times. Moreover, in a severe recession the systems of many states would prove unable to maintain solvency without drastic increases in taxation at a time when such increases are least called for.

In view of these contingencies it is not surprising that many students of unemployment compensation admit that the problem which unemployment compensation aims to relieve is a national one, and that it cannot adequately be resolved without the federal government assuming greater financial responsibility, with the states possibly retaining the administration of the program.

Some would go farther still and replace the dual system of unemployment compensation and relief by an integrated system of compensation that provides benefits for the whole period of unemployment.[8] Reorganization along this line would no longer expose the unemployed to a reduction of income once the compensation period is terminated and that of relief begins. By the same token, demand would be stimulated more effectively; and the benefits from this would be diffused through the whole economy. Moreover, the elimination of the unemployed from the local relief rolls would shift the burden of their maintenance from local authorities to governments with broader sources of revenue. The incidence of the relief burden on local and state governments is apt to conflict with the aims of fiscal policy in times of depression. They place much reliance on proportional or regressive taxes, and their ability to use deficit finance is limited.

Indeed, it is exactly when unemployment becomes prolonged and the recession more severe that liberal unemployment compensation benefits will be most advantageous to society by strengthening over-all demand and purchasing power. For this reason it has been proposed to make benefit payments flexible, raising them as unemployment increases and lowering them as it declines, with no limit placed on their duration in times of high unemployment.[9] Although this idea is eminently sound, it is too new to

[8] See Walter A. Morton, "Unemployment Compensation in Wisconsin," *Social Service Review*, Vol. XX, No. 3 (September, 1946), pp. 333–44, and, by the same author, "Two Views of Unemployment Compensation," *ibid.*, Vol. XXXI, No. 2 (June, 1947), pp. 219–26. Additional references, especially to critiques of the scheme, are supplied in these articles.

[9] See John K. Galbraith, *The Affluent Society* (Boston: Houghton Mifflin Co., 1958), pp. 292 ff.

hope for its early adoption as a measure of high preventive value. It falls in line, however, with legislation passed by six states in 1959. While these laws fail to provide for flexible payments or indefinite extension of benefits, they automatically extend the duration of benefits for a period from eight to thirteen weeks if unemployment rises above a certain level—usually 6 per cent.

Unemployment Relief and Public Works. In the absence of a reorganization as sketched in the preceding paragraph, the terminaton of unemployment compensation is in cases of prolonged unemployment followed by an increase in relief payments. "General assistance" of this type is ordinarily not supported by federal grants-in-aid, although these become indispensable if a severe depression occurs. During the mild postwar recessions, the number of people on the relief rolls increased from 398,000 in 1948 to 562,000 in 1949, from 270,000 in 1953 to 351,000 in 1954, and from 345,000 in 1957 to 434,000 in 1958. Apparently people were equipped with larger reserves than they had been during the 1930's when 1½ million were on the relief rolls.

During the Great Depresson, relief was provided in the form of home or work relief. The provision of home relief is a local function whose fulfillment soon exhausted local finances to a degree requiring state and federal aid. Since there are rather narrow limits of the capacity of the lower political subdivisions to incur debts, local relief was primarily financed from tax revenues. Reliance on severe taxation, especially of the type available to the states and localities, is liable further to reduce private expenditures and thus to deepen the depression.

Work relief was financed on a large scale by the federal government, which sponsored a great variety of projects. The law required that they be useful, but it also prohibited projects that would compete with private industry. While the character of relief projects was restricted in this manner, there was considerable criticism of the apparent wastefulness of some projects. Officials in charge of the program were accused of promoting "boondoggling" and "leaf raking." However justified these complaints may have been, it is nevertheless true that in times of depression useless public works are preferable to no public works. This is so because useful and useless projects alike, by promoting additional expenditures of the newly employed, increase, via the multiplier, the incomes and expenditures of others. As has been noted on page 122 the total increase in employment and income induced by additional investment is in excess of the increase in income and employment represented by the additional investment itself, regardless of the specific content of the latter.

As the proper timing of public works is of considerable importance, adequate preparations well ahead of the onset of the depression are called for. These will include inventories of suitable projects—highways, schools, hospitals, water and sewerage facilities, construction projects of federal

agencies, and the like. A public works inventory was indeed prepared some years ago in anticipation of an eventual recession. Another problem is the proper synchronization of public works sponsored by the local and state authorities. These generally tend to sponsor public projects during prosperous times when tax receipts are high and thus add fuel to the forces of inflation. During periods of adverse business conditions, on the other hand, they are inclined to economize.

Automatic Stabilizers. There are a number of so-called "built-in," or "automatic," stabilizers operating in our economy which in the case of a recession are likely to cushion the fall in income and employment. They do this by reducing the amount of money taken out of the income stream or by adding to the amount going into it. Foremost among these automatic stabilizers is the progressive income tax, which by its very nature takes a higher proportion from a large national income and a lesser from a small one. Another stabilizer is the payroll tax from which old-age and survivors insurance is financed (see p. 281). With declining employment there is a corresponding reduction of this levy. Supplemental unemployment benefits and unemployment compensation benefits are other stabilizers: they add to income when employment falls. In the case of unemployment compensation benefits, their stabilizing effects may, however, be canceled and turned into their opposite if under merit rating there is an increase in payroll tax rates as unemployment progressives.

Fiscal and Monetary Policies. When unemployment threatens, these automatic stabilizers will be supplemented by fiscal and monetary policies aiming at stimulating the rates of consumption and saving. An increase in the personal exemption from the income tax or a reduction of the tax rate will stimulate consumption. The threat of unemployment calls for elastic tax policies; and the tax rates in a given tax system, once unemployment occurs, become by virtue of this fact excessive: taxation absorbs from the stream of expenditures money which, if otherwise disbursed, would increase incomes and make employment approach more fully the level of capacity.

Investment may likewise be stimulated by tax incentives, making it more advantageous to sink money into capital. Low-interest policies, although they in themselves do not suffice for the stimulation of investment, must be maintained or strengthened. To the extent to which this is possible the confidence of the business community in the future course of economic affairs must be revived; and the cumulative downward push of the movement, cushioned. The maintenance of confidence may be no easy matter, because some of the public policies applied during a depression tend to be regarded by businessmen as destructive of free enterprise and harmful to the development of private initiative. This applies with special force to the increase in public expenditures, absolutely and relative to taxes, recommended during depressions. The opportunities for such expenditures are

particularly impressive in the fields of education and health care, purposes whose nature seems to suggest that increased public spending should not interfere with the legitimate interests of business. Similar opportunities are available in the form of river development schemes, urban improvements, airports, and the like. Finally, when resources are idle the case which can be made for public housing projects for low-income groups is greatly strengthened.

Fiscal policy, that is, the manipulation of public revenues and expenditures with the aim of affecting the national income, may proceed with the help of a tax reduction or of an increase in public expenditures for goods and services. If the starting point is a balanced budget, a tax reduction will require a larger deficit than do increased government purchases to bring about a given increase in the national income. That is, a dollar's worth of tax reduction is less potent an instrument of expansion than is an extra dollar of government purchases. This is so because a reduction of taxes initially only increases the disposable income, not the national income, while the induced effects on consumption are the same in both cases. For example, if the desired increase in the national income is $45 billion, and if the multiplier is 3, an increase in government purchases amounting to $15 billion will produce the desired effect. The initial spending raises income by $15 billion, which is followed by induced spending on consumer goods amounting to $30 billion.[10]

In the case of a tax reduction there is no such initial spending. That is, if the tax reduction would be one of $15 billion, income would increase by $30 billion. To raise the national income by $45 billion, the tax reduction would have to amount to $22.5 billion. (A similar mechanism would operate if the government does not increase its purchases of goods and services but its transfers. Again, these affect initially only the disposable income.)

It may be argued, however, that deficit spending is unnecessary, because its function of generating employment and income can also be fulfilled by government expenditures that are financed from taxes. This is true, but to bring about a given increase in the national income by means of tax-financed spending requires a much larger expenditure than is needed under deficit financing. In the above example, both taxes and government purchases would have to increase by $45 billion to raise income by the same amount. The increase in government purchases would raise income by $135 billion, that in taxes would cause it to fall by $90 billion, leaving a net increase in income of $45 billion. This is so because a dollar's worth of additional government purchases causes income to go up by a larger amount than the one by which it declines as a result of an additional $1 of taxes.

[10] The argument is developed in detail in Henry W. Spiegel, *Introduction to Economics* (Philadelphia: Blakiston Co., 1949), pp. 215 ff.

It has also been pointed out that under certain conditions an increase in public expenditures may be self-financing. This would be the case, for example, if the multiplier were 3 and if tax yields increase by one third of an increase in the national income. Under such conditions, an increase in public expenditures of $1 billion would lift income by $3 billion; and of this amount one third, or $1 billion, would be returned to the Treasury.[11]

There are three problems common to fiscal and monetary polices: that of time, of size, and of place of application. Proper timing, as has been pointed out, is of the essence; once the downward movement has assumed momentum, a much greater effort is required to stem it. Proper timing thus calls for flexibility of economic policy not easily obtainable without special administrative measures. Measures, however, that reflect a careful watch of the tides of economic change, must also strike the balance between too small a dose and too large a one. Too much of a good thing is just as undersirable as too little. Policies that go too far will create expansion as well as unwelcome inflation; policies that are not vigorous enough will have little effect in curing unemployment. In a sense the expansionary policy of the thirties was a failure, because at the end of the period the number of unemployed was still in excess of eight millions. Many will feel, however, that in the absence of such a policy their number would have been larger still. The difficulty, then, is to state exactly how vigorous fiscal and monetary policy must be to bring about the desired objective. This problem is well recognized in the current economic discussion. Greater emphasis on quantitative research and operational thinking will, it is hoped, bring us closer to its solution.

The third problem, that of the place of application of fiscal policy, arises from the fact that the remedies proposed in this section are general, while the symptoms of the disease are first noticeable in specific sectors of the economy wherefrom they spread during subsequent periods. Early distress may be localized in coal mining or in the textile industry, for example, boosting unemployment figures. If then a public works program is started, this will benefit, in the first line, businesses and workers in the building trades. Considerable time may pass until the effects of the program begin to be diffused throughout the economy, and the effects upon those whose plight occasioned the program may be inadequate. Being designed to lift the general level of demand, fiscal and monetary policies may fail to improve the relative position of declining investment goods industries and of the demand of consumers attached to them.[12]

Area Redevelopment. In view of this inadequacy of over-all fiscal and

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[11] See Arthur Smithies, "The Multiplier," *American Economic Review*, Vol. XXXVIII, No. 2 (May, 1948), pp. 299–305.

[12] See review article by James W. Angell, *Review of Economic Statistics*, Vol. XXIX, No. 4 (November, 1947), pp. 291 f.

monetary policies the idea has gained ground in recent years that these policies should be supplemented by measures that would directly affect specific regions and localities suffering from chronic distress. The Department of Labor has identified thirty major districts and over a hundred smaller ones as areas of "substantial labor surplus." In about a half of these the depression is a chronic one, with unemployment rates well above the national average. Most of the distressed areas are in the old industrial regions of the Northeast, and the principal industries affected are coal mining and textiles.

President Eisenhower urged the Congress for five consecutive years in the late 1950's to pass legislation that would grant special assistance to such regions. However, the two area assistance bills enacted by the Congress in 1958 and 1960 were both vetoed by the President as not measuring up to his recommendations. The 1958 bill authorized loans and grants amounting to $390 million; that of 1960 was more modest and required an outlay of $251 million. The second bill included for consideration the regions of rural poverty south and west of the Appalachians. The President himself favored a more limited program, amounting to $53 million, which would have placed greater reliance on state and local funds.

Area redevelopment schemes aim at attracting new industries to distressed regions. They operate with the help of long-term loans and grants for public improvements, new establishments, the retraining of workers, and technical assistance. On a state and city-wide basis, similar schemes, though much smaller in scope, have been in existence for a number of years in the New England states, in Pennsylvania, and in the South, and have produced good results. The state of Pennsylvania, for example, has tried to attract new industries to the coal-mining regions and other distress areas by promising 100 per cent financing for new plants. Twenty per cent of the cost of a new plant is subscribed by local nonprofit community-sponsored builder-owner corporations, 30 per cent by the Industrial Development Authority of the state in the form of a second-mortgage loan, and 50 per cent by banks, insurance companies, and similar lenders in the form of a first mortgage. Interest is as low as 2 per cent up to one half of the total plant cost.

SUMMARY

Congress, by passing the Employment Act of 1946, has affirmed the responsibility of the federal government for the provision of "maximum employement." Cyclical or depression unemployment, a scourge of economically advanced countries, differs from seasonal and technological unemployment. Unemployment prevails when employable persons are willing to accept jobs at the going wage rate but are unable to obtain them.

While there is universal agreement about the desirability of avoiding mass unemployment, the positive goal of "full employment" is not endorsed as generally.

The level of employment is determined by aggregate expenditures for investment and consumption. The prevention and cure of unemployment thus requires stimulation of consumption and/or investment. All types of unemployment are relieved by facilities designed to improve the mobility of labor by means of employment services. The provision of training facilities is especially helpful in the case of technological unemployment.

Unemployed persons who have worked in covered employments receive unemployment compensation benefits for a period up to 26 weeks. If unemployment persists after this time has expired, they receive home relief or may find jobs on public works projects. When mass unemployment threatens, fiscal and monetary policies will aim at stimulating the over-all level of demand. They may be supplemented by area redevelopment programs which affect the distressed regions directly.

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STUDY QUESTIONS

1. How many were unemployed during the Great Depression?
2. How many are now unemployed (consult *Monthly Labor Review*)?
3. If you look for a summer job which pays $20 an hour, and cannot find one, are you unemployed?
4. What is the practical importance of the definition of unemployment?
5. What types of unemployment do you know?
6. How many people are among the frictionally unemployed?
7. Can annual wage plans provide a complete cure of unemployment?
8. What type of unemployment can best be prevented by annual wage plans?
9. How are supplementary unemployment benefits financed?
10. What is the relationship between full employment and economic growth?
11. What does labor mobility have to do with the prevention of unemployment?
12. Why might a private business enterprise be reluctant to provide training facilities?
13. How was the establishment of unemployment compensation systems by the states encouraged by federal legislation?
14. Why is unemployment not an insurable risk?
15. Is it desirable to have the states levy different rates of payroll taxes for unemployment compensation?
16. What is meant by merit, or experience, rating?
17. Why does a given increase in government purchases of goods and services go farther in stimulating employment than a tax reduction in the same amount?
18. Why may pockets of unemployment persist in the face of a program of public works?
19. What goal of public policy is stated in the Employment Act of 1946?
20. How is this goal to be implemented?

Chapter 10 THE POSITION OF ORGANIZED LABOR

With more than 40 per cent of all American employees working in enterprises having five hundred or more hired people, the relationship between employer and employee has all but lost the personal character it had in the past. Paternalism has become obsolete, and with it there has disappeared that job security and certainty of status which the personal bond seemed to assure. In an environment in which large business units and collective action among businessmen stand out, labor sought to restore its status and regain security by forming trade-unions whose voice would carry greater weight than that of the individual workman before employers and the public. The widespread development of trade-unions, a new factor in American politics and economics, has confronted the public with the need for a proper definition of their functions. This problem is taken up in the first section of this chapter, followed by a brief outline of the development and structure of trade-unions. Once their functons have been appraised, their rights and duties will be discussed: internal relations of unions, interunion relationships, and relations between the union on the one hand and the employer or the government on the other. This leads to the study of industrial conflict and the means for its settlement.

THE FUNCTIONS OF LABOR UNIONS

While, historically speaking, unions may be said to have economic and political functions, the American labor movement during long periods of the past has lived up primarily to the former. The basic economic function of unions is the improvement of the members' economic position.

Economic Functions. There are two principal methods by means of which unions may seek to lift wages and working conditions. One, which is no longer of great practical importance, operates with the help of restric-

tions on the free entry into employments; and the other through collective bargaining. Unions may use either one or both methods. Turning first to restrictions on the freedom of entry, it can be easily seen that unions, by restricting the number of their members by means of high initiation fees, long periods of apprenticeship, and other obstacles, can produce scarcity of candidates for available jobs and thus raise members' remuneration. This is at least true under arrangements which make only union members available for employment. If unions were to concentrate upon this function, they could be characterized as aiming at maximization of the return accruing to the individual member. And if, furthermore, unions were sellers of labor, their attitude would resemble that of the monopolist who, by limiting output, obtains a higher price.

The described policy was, however, more germane to craft unionism than it is to modern industrial unionism. It does not happen often that a union admits to membership only the first born sons of its own members, as is still true of the Newspaper and Mail Deliverers Union in New York City. Although there are exceptions, apprenticeship requirements and initiation and membership fees generally are moderate, especially those of the great industrial unions.

Under modern conditions, collective bargaining has become the principal function of unions. By this is meant that the union, in negotiation with the employer, participates in the determination of the wages and working conditions under which its members operate. Unions are designed "to establish that equality of position between the parties in which," according to Justice Holmes, "liberty of contract begin." In the absence of labor unions, a quoted price which the employee must take or leave is characteristic of the labor market. There is no bargaining unless it is collective. While the role of the individual worker in such bargaining may be as modest as it is when wages are fixed by the employer, the participation of the union will generally secure him better terms. This is so, because the union's power to make its members withhold their services will impress the employer much more than an individual worker's threat to do this.

Unions thus repair disadvantages in which the individual employee finds himself. Normally, hiring and firing will have much greater significance for him than for the employer, especially in modern large-scale enterprise. In this connection, many writers stress that a worker's services cannot be stored; that wages lost on account of unemployment are lost forever. This argument may not seem to be too convincing. First of all, if labor were storable the burden of past unemployment or of past strikes would hang over the market and depress wages for a long time after unemployment or strikes are over. Secondly, the services of capital funds cannot be stored either, and capital returns lost on account of idleness of capital are lost forever. The important factor is that the owners of capital are often in a better position than the workers to bear the incidence of

temporary idleness. Employees are generally not equipped with ample liquid reserves. Their relatively weak financial position tends to reduce their mobility and thereby limits alternative opportunities. This in itself restricts the competition of potential employers for their services. The labor market, in the absence of unions, is indeed not competitive in the sense that deviations from the old order, brought about by unions, will cause these to assume the role of monopolists. As has been seen, prices in the labor market are quoted. Moreover, compared with many commodity markets, the relationship, once established, shows considerable stability. What is more important the forces of competition operating on the labor market are not strong enough to equate wage rates for work of the same grade and quality. All these factors make it inopportune simply to assume competition in the labor market if there are no unions. These considerations do not exclude the importance of employers' bidding for labor during periods of brisk expansion as a factor which raises wages. Such bidding, for example, was pronounced during the decades preceding World War I, and it may be encountered during other periods of rapid economic growth.

If, in the absence of labor unions, the labor market is not competitive, does strong unionism make it more competitive; or does it shift the locus of monopoly power so completely that, not the buyer, but the seller of labor acquires monopoly power? There are those who object to the characterization of unions as labor monopolies. One of their arguments is that unions are not monopolistic, because they do not sell labor. This argument may not be convincing, because on the same grounds cartels and pools could be acquitted of the charge of monopoly. They ordinarily do not sell the products for which prices are fixed or competition reduced otherwise.

Another argument states that a monopolist, just as any other seller, aims at maximization of profits; but it is very doubtful indeed whether union policies can be interpreted as designed to maximize monetary quantities. Unions are agencies that have to fight for the loyalty of their members in a similar fashion as do political organizations. They often pursue policies that are unrelated to the short-run maximization of the wage bill or other magnitudes. Leaders seek to maintain their status or to attract members; they may prefer greater security for the union to an increase in wages or may otherwise behave in a way that would seem meaningless and irrational if their goal were the short-run maximizaton of wages.[1] However, such trade-union activities may be more fully compatible with the goal of maximization of wages in the long run.

[1] For a more complete discussion of these issues see Arthur M. Ross, *Trade Union Wage Policy* (Berkeley: University of California Press, 1948); Richard A. Lester, "Reflections on the 'Labor Monopoly' Issue," *Journal of Political Economy*, Vol. LV, No. 6 (December, 1947), pp. 513–36; Frederic Meyers, "Price Theory and Union Monopoly," *Industrial and Labor Relations Review*, Vol. XII, No. 3 (April, 1959), pp. 434–45.

Impact on the Demand for Labor. If the pressure of unions results in higher wages than would prevail in their absence, the question arises whether this will not depress the volume of employment. Such result would seem to depend on the elasticity of the demand for labor. If the demand for labor is elastic, employers would, at the higher level of wages, restrict the volume of employment. Whether the demand for labor is elastic or not is a doubtful question that cannot be answered unequivocally. Much depends upon the time period considered and upon the specific aggregate of labor that is studied. It seems that over long periods the demand for labor as a whole is highly elastic.[2] Exclusive emphasis on this factor is misplaced, however, because the wage, apart from being an important cost item, also is a significant element in the determination of consumer demand. If wages fall the favorable effects on employment may be offset by the impact of slackening markets on the employers' sales opportunities. This would lower the demand curve for labor so that at the reduced wage rate the number of people who find work may not be as large as it was before.

In the face of swiftly increasing labor productivity, unions may be considered beneficial, because they facilitate the absorption and dispersal of benefits which technological advances bring about. Indeed, a number of collective agreements, among which that between General Motors Corporation and the United Automobile Workers Union stands out, provide for an annual "improvement factor" in the form of regular increases in hourly wages by a stated amount to reflect the rise in productivity. About 4.4 million workers are covered by such contracts. Without aggressive pressure for higher wages the benefits from increasing productivity could be distributed among society also in the form of lower prices. This solution is indeed advocated by a number of economists. But in an environment characterized by widespread monopolies and imperfections of the market, it will not readily come about as an automatic consequence.[3]

There is, of course, the danger that trade-unions may overreach themselves in their demands and cause prices to rise, reflecting increased wages. Attention has been drawn to this problem in Chapter 8 (p. 171), where possibilities for its solution have been pointed out.

Impact on Productivity. The economy of high wages, short hours, and improved working conditions has always found eloquent advocates in the United States. High wage levels account for, and at the same time reflect, the unparalleled productivity of the American worker. When wages are low, standards of health, nutrition, and education are inferior; and so is productivity.

High wages may also stimulate productivity in still other respects. When there is relentless pressure for higher wages, management must

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[2] Paul H. Douglas, *The Theory of Wages* (New York: Macmillan Co., 1934), Part II.

[3] See above, p. 58.

always be on the alert, improving its practices and searching for technological innovations.[4]

Impact on Unorganized Workers. The number of unorganized workers continues to be large and in the United States still exceeds by a wide margin that of union labor, the recent spread of unionization notwithstanding. There are some who believe that wages of nonunionized people will tend to rise at a rate similar to that at which employment conditions of union workers improve. This view, which is associated with the names of Sidney and Beatrice Webb (1859–1947 and 1858–1943), the great British pioneers in the study and promotion of trade-unionism, is difficult to verify conclusively. In the United States, it is true, statistical investigations seem to indicate that from 1914 to 1926 wages in the nonunion manufacturing industries have increased at least as fast as those in union manufacturing industries. There is no proof, however, that the latter movement was a cause of the former. In earlier years the rise of labor organizations was probably one of the factors responsible for raising union rates at a fast pace, leaving nonunion rates far behind.[5]

The parallel movement referred to in the preceding paragraph does not preclude the continued existence of differentials between union and nonunion wages. Indeed, in a study covering the years from 1951 to 1957 it was found that wages in union plants tend to be consistently higher than wages in nonunion plants in the same industry, and that the average differential is about 8 per cent.[6]

What about the position of the white-collar workers and similar groups that tend to resist unionization? In the past, unionism may have entailed the relative deterioration of the status of these people, whose earnings did not advance as fast as those of manual labor. Unionization has not made much headway here since considerations of prestige and the fear of losing caste often prevents white-collar groups from organizing. But in recent years the increased demand for supervisory employes, from foremen up, and for clerical and service personnel of all types seems to have created a situation where they can hold their own, in terms of wages, in the face of swiftly rising wages for unionized production workers.

Political Functions. Under unionism the status of the worker in society is more firmly anchored than when he has reason to consider himself at the employer's mercy. The spread of trade-unions helps to maintain the

[4] Sumner H. Slichter, *The Challenge of Industrial Relations* (Ithaca, N.Y.: Cornell University Press, 1947), pp. 34, 69, 72 f.

[5] The experts do not agree about the exact role which unions play in the redistribution of the income of society. See Clark Kerr, Martin Bronfenbrenner, and Harold M. Levinson, "Potentialities and Limitations in the Use of Collective Economic Power in Varying the Compensation of Labor and Capital," *American Economic Review*, Vol. XLIV, No. 2 (May, 1954), pp. 278–321.

[6] "Union vs. Nonunion Wages," AFL-CIO, *Collective Bargaining Report*, Vol. IV, No. 7 (July, 1959), pp. 33–40.

self-respect of the worker in the face of powerful giant organizations that employ him, and gives him a new dignity. It has ushered in an era of union-management co-operation that manifests a new spirit of interest in the job.[7] Union-management co-operation implies more than the mere acceptance, by employers and unions, of each other's functions. It may yield joint programs aiming at the stimulation of productivity and technological progress.

From the point of view of society as a whole, organized labor is considered by many a welcome counterweight to the power of organized business and agriculture. In England the Labour Party has for long been the political arm of the trade-union movement, and labor in the United States is showing much greater political awareness and activity than in the past. In contrast to other countries, labor's increased political activity takes the form of a pressure group. This is due to our political arrangements and to our history. Our two-party system is so strong that the attempts of third parties to enter the political arena have invariably failed in the past. In our society, mobility is so high and opportunities beckon so abundantly that labor has not emerged as a distinct social class that would lend itself to party organization—as it has in other countries where the class division of society is more pronounced.

Traditionally, organized labor in America has followed in elections the political rule of punishing its foes and rewarding its friends, without attaching itself definitely to any one of the two great parties. The evidence as to its actual influence in politics is inconclusive. Two aspects of this influence may be distinguished: that on the electorate and that on the elected representatives. On the average, labor-union members constitute 17 per cent of the potential voters in the United States. The percentages ranges from well over 20 in the highly industrialized states of the East and Middle West to less than 5 in a number of southern states. There is thus a substantial "labor vote," but it is hard to deliver. Although all the major labor organizations supported the Democratic candidate in the presidential elections of 1952 and 1956, the rank and file did not supply enough votes to secure his election. The congressional elections of 1958 were at first interpreted as a victory of labor since many of its candidates got elected while those whom it opposed were defeated. But the new Congress, in the year immediately following, passed the Labor-Management Reporting and Disclosure Act, parts of which were bitterly opposed by organized labor.

Basically, the labor movement is a conservative force in our society. Flourishing labor organizations that can engage freely in collective action are, in a sense, manifestations of the workingmen's attachment to the institutions of capitalism. Labor organizations and collective bargaining have become part and parcel of the mechanics of modern democratic

[7] See Neil W. Chamberlain, *The Union Challenge to Management* (New York: Harper & Bros., 1948).

societies. If this outlet for the ambitions of the working class did not exist, it is possible that workers might be driven into radicalism and might seek for remedies that would endanger existing institutions. Historically, suppressed unionism has generally been extremely radical. Where suppression was relentless, as in Czarist Russia, communism has ensued. Where it gradually relaxed and in the end gave way to encouragement and toleration, as in western Europe and North America, labor has shown little inclination to change the rules of social life by means of violent upheavals. It may be doubtful whether the unhampered operations of trade-unions make for peaceful industrial relations, but it seems safe to say that they tend to preserve the institutions of democratic capitalism.[8]

DEVELOPMENT AND STRUCTURE OF UNITED STATES TRADE-UNIONS

During the twenty-year period from 1935 to 1955 trade-union membership has risen by leaps and bounds. There were less than 4 million union

LABOR UNION MEMBERSHIP

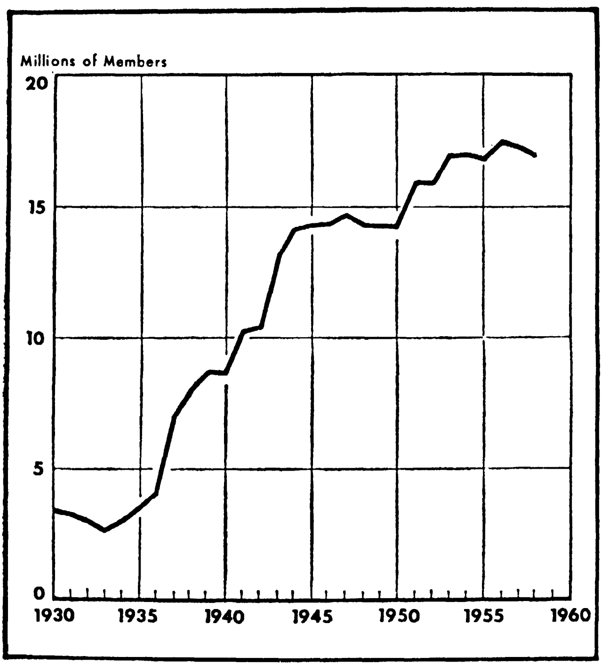

FIG. 27. Labor union membership has grown since the mid-thirties but reached a plateau in the mid-fifties. From *Monthly Labor Review,* January, 1960, p. 2.

[8] See Selig Perlman, "The Principle of Collective Bargaining," *Annals of the American Academy of Political and Social Science*, Vol. CLXXXIV (March, 1936).

members in 1935 and 17 to 18 million in 1955. During the 1950's the increase proceeded more haltingly, and since 1955 the growth has all but stopped (see Fig. 27). The larger the labor movement, the more difficult becomes further expansion into the unorganized sector of the employees of small firms, of white-collar workers, and of labor in the South. To these obstacles to expansion there must be added the shift into service employments of all sorts, which has de-emphasized the relative importance of production workers in our economy, and the unfavorable climate created by the hearings before congressional committees in the late 1950's, which revealed practices of graft, corruption, and racketeering in a few labor unions.

LABOR UNION MEMBERSHIP AS A PER CENT OF TOTAL LABOR FORCE AND OF EMPLOYEES IN NONAGRICULTURAL ESTABLISHMENTS

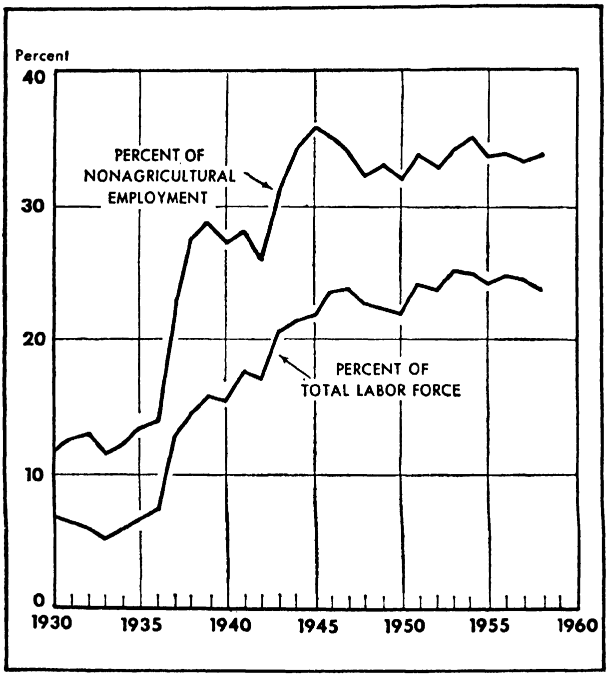

FIG. 28. Labor union members constitute less than a quarter of the total labor force and slightly more than one third of nonagricultural employment. From *Monthly Labor Review*, January, 1960, p. 4.

Of the total labor force, close to one quarter is in trade unions; of the nonagricultural labor force, one third (see Fig. 28). If the civilian labor force is reduced by the number of managers and proprietors, the unionized component is again about one-third. The extent of unionization varies greatly by industry. From 80 to 100 per cent of all workers in coal mining and the iron, steel, and automobile industries are in labor unions. The

proportion of union members is between 40 and 60 per cent in the chemical industry, between 20 and 40 per cent in cotton textiles, and between 1 and 20 per cent in agriculture.

Approximately 15 million union members are in organizations affiliated with the American Federation of Labor-Congress of Industrial Organizations (AFL-CIO). Another 3 million are members of unaffiliated unions, principally of miners, railroad workers, and teamsters.

Historical Development. The prominence of trade-unions to the extent indicated in the preceding paragraph is a new phenomenon in the United States. It is true that labor unions have flourished during the nineteenth century and earlier; and according to some authorities, there is an unbroken link, weak as it well may be, between the medieval guilds and the present-day labor movement. But unions in the modern sense are a product of the industrial age with its large factories and of the spread of democracy. Under conditions of general suffrage and popular education, workers' pleas for social legislation and government action favorable to unionism find a more ready response than was true when suffrage was limited to property owners and education a privilege of the well-to-do.

In the face of an ill-disposed or, at best, neutral public policy toward unionism, it is natural that the earlier labor organizations had characteristics that modern unions have abandoned. The Industrial Workers of the World (IWW), for example, which flourished from 1905 to 1920, had a program of sabotage and general strike inspired by hatred of the system of private enterprise. Among the earlier unions, radicalism was more pronounced, in the sense that the value of existing political institutions was questioned. There was also much inclination to abstain from partisan politics as well as from reliance upon the government as potential supporter of the labor movement. Reluctance to make too much of government support or, in more positive terms, "voluntarism," continues to be an attitude typical of important elements of the labor movement.

The American Federation of Labor. The American Federation of Labor, the older of the two principal federations of unions which merged into the AFL-CIO in 1955, was formed during the eighties of the past century. The leading spirit in the drive for its organization was Samuel Gompers, head of a cigar makers union, who held the post of president of the American Federation of Labor, with the exception of one year, until his death in 1924. The AFL was to assume the legacy of an earlier union, the Knights of Labor, which had disintegrated because of lack of ability to reconcile the interests of skilled and unskilled members and also as a result of political alignments with farmers and other middle-class groups. In its early history the AFL cultivated unions of skilled people, but especially since the early thirties all types of workers were welcome. The AFL was, as has been indicated, a federation of national and local unions. Unions

affiliated with it enjoyed a great deal of autonomy in the handling of their internal affairs.

The rise and growth of the AFL was at times obstructed by serious obstacles. Before World War I, there was an open-shop drive among employers. After unionism had progressed during the war, there emerged the so-called American Plan, which was designed to promote company unions.

The Congress of Industrial Organizations. The sway of the AFL was not broken until the middle of the thirties, when John L. Lewis, president of the United Mine Workers, an AFL affiliate, caused the formation of the CIO. These initials originally stood for Committee for Industrial Organization, a body that had been established after the AFL had refused to advance industrial unionism in the mass-production industries. While the CIO was originally designed to work within the AFL, it subsequently seceded from it and became a powerful organization of its own, taking along some AFL unions and forming new ones. The Congress of Industrial Organizations, as it came to be called, made much headway in the steel, automobile, metal mining, electrical manufacturing, shipbuilding, packing, textile, and numerous other industries. Its backbone during the years of expansion was the great mine workers union.

The dual unionism and the principle of industrial unionism sponsored by the CIO ushered in an era of interunion disputes. There is no doubt that the split of the labor movement implied a division of forces that absorbed valuable energies and weakened its influence in certain respects. But it also seems certain that the decade of unprecedented progress, marked by the huge increase in union membership, reflected largely the vigor of a new organization that could not fail to arouse the labor movement from its apathy. The array of forces did not remain the same, however. John L. Lewis, and with him the mine workers union, withdrew from the CIO during the 1940's and for a short time returned to the fold of the AFL, to remain unaffiliated thereafter.

The AFL-CIO. After ceaseless efforts at reconciliation the unity of the labor movement was restored in 1955, when the AFL and CIO merged into a new organization known as AFL-CIO. At that time, unions affiliated with the CIO had about 5 million members, while unions affiliated with the AFL had twice that many. The merger was facilitated by the passing from the scene of the leaders of the two rival organizations and by the desire to put to an end the unprofitable practice of "union raiding," which occurs when a union tries to organize workers that are members of another union. This practice had absorbed much energy of the labor movement without producing a substantial net advantage to either group.

George Meany, president of the AFL, became president of the newly founded organization, and Walter Reuther, president of the CIO, its vice-

president. Meany had risen from the rank and file of the plumbers union. Reuther has made a name for himself as an organizer of the automobile workers union in the 1930's, of which he continues to be the president.

Industrial versus Craft Unions. The rise of dual unionism in the United States was often interpreted as the outcome of a division on principles. In truth, it was as much the result of lethargy and inertia, vested interests, and personal conflicts and ambitions. While the AFL had admitted national unions organized on an industry-wide basis, it had done so hesitatingly and with a good deal of suspicion.

Craft unions are associations of men skilled in the same trade. This type of organization is appropriate, in the first line, to enterprises such as are found in the building-construction industry, in which specific crafts function. They are also advantageous when craftsmen frequently shift from one industry to the other. Moreover the local of a craft union which engages in conflict with the industry which employs its members may draw on the resources of the brothers who work in other industries. Important also is that exclusive unions of skilled people enjoy an unusually strong bargaining position. If their members refuse to work, this may paralyze whole industries. Concessions which are granted to them will not unduly burden the employer because of the limited number of people concerned.

In industrial unions which include various types of skilled, semiskilled, and unskilled persons employed in a specific industry, the strength of the skilled people may be somewhat diluted. But as the labor force of modern mass-production industries is composed of such a variety of workers, this has called for unions in which the unskilled and semiskilled find their places. Moreover the existence of one industrial union makes it impossible for the employer to play off one union against another. Industrial unions also facilitate organization drives in enterprises combining workers of diverse skills. They make it easier for the employer to carry on negotiations than if this would have to be done with a multiplicity of unions.

It is for these reasons that industrial unions have come to the fore almost everywhere under economic conditions resembling those in the United States. In the United States itself, they have made much headway, conquering industries in manufacturing that for long had resisted unionization. In addition to craft and industrial unions, there also have arisen multicraft unions, the results of amalgamations.

Internal Structure of AFL-CIO. The AFL-CIO, like its two forerunners, embraces national unions which, in turn, are made up of local organizations. Sometimes, and especially when they include locals in Canada or Mexico, the national unions refer to themselves as international. On occasion, local unions are directly affiliated with the AFL-CIO. The latter is controlled by the most powerful national unions that are affiliated with it.

Samuel Gompers, for almost half a century president of the AFL, once referred to it as a "rope of sand," tying together over one hundred national

unions. These, in turn, embrace many thousands of locals. While the locals are controlled by the national unions, the great association of national unions exercises only a modicum of control over the affairs of its members. The AFL-CIO will, in effect, guarantee the jurisdiction of its affiliates. It will resist the formation of a competitive organization within its ranks, while it may well encourage such a development in opposition to an unaffiliated union. Within limits, affiliation thus implies security. Furthermore the federation is active in national politics, and it may be of considerable help in matters of education and organization. The national federation is in many instances paralleled by regional, state, or city-wide federations of labor unions, which are active within a more limited geographical range.

The strength of the national organizations has also grown on account of their substantial financial resources. These are derived from per capita payments levied on the membership of the locals. They also control various funds for sickness and pension benefits and related purposes. Bargaining with employers is carried on principally by local and national unions.

RIGHTS AND DUTIES OF UNIONS

Labor Unions and the Law. Until recent decades, courts and legislatures frowned on union activities; and on occasion, unions were considered criminal conspiracies. Gradually a more favorable attitude came to prevail. Its rise can be illustrated by a series of federal laws. The Clayton Act of 1914 had exempted unions from the antitrust laws and restricted the use of injunctions in labor disputes.[9] In the Railway Labor Act of 1926, labor's right to organize, by then recognized by the courts, was affirmed in a federal statute. The Norris-LaGuardia Act of 1932 further restrained the use of injunctions in labor disputes and declared the yellow-dog contract[10] contrary to public policy. Section 7a of the ill-fated National Industrial Recovery Act of 1933 expressly recognized the right of employees to organize and bargain collectively and promised them freedom from interference by employers. It also made unlawful conditions of employment under which workers would have to join a company union[11] or refrain from joining legitimate unions. This Act, in turn, was followed by the National Labor Relations Act of 1935, sponsored by Senator Robert Wagner of New York and often referred to as the Wagner Act. The Wagner Act

[9] An injunction is a court order forbidding certain actions considered by the court as violations of rights.

[10] The yellow-dog contract is an agreement between employer and employee in which the latter promises not to join a union.

[11] The company union has been said to provide "the shadow but not the substance of collective bargaining." (Philip Taft, *Economics and Problems of Labor* [Harrisburg: Stackpole Sons, 1942], p. 680.) It is an organization generally limited to employees of a certain enterprise, rarely enjoys independence, and is on the whole a manifestation of paternalism rather than of economic democracy. Under the Wagner Act, company unions are, in effect, all but outlawed.

again stated labor's right to organize and bargain collectively and created a National Labor Relations Board to enfore it. It also declared unlawful a number of employers' practices considered unfair. These include interference with the workers' right to self-organization; domination of, support to, or interference with unions; discrimination in hiring or firing of union members; and refusal to bargan collectively with unions.

When the Wagner Act was passed, there were only 4 million organized employees. A dozen years later their number had risen to more than 15 million. The Wagner Act, in effect, lent support to the organization of unions by making it less hazardous for employees to join them. A direct result was the reduction of industrial disputes caused by the denial of the right to organize and bargain collectively. The number of strikers who participated in *organizational* strikes of this sort fell from 60 per cent in 1937 to 2 per cent in 1958. While there occurred numerous work stoppages under the rule of the Wagner Act, especially during the inflationary boom of the postwar period, the bulk of these arose from *wage* disputes between strong unions and strong employers.

The Wagner Act enabled large groups of workers, especially in the southern states, to engage for the first time in collective bargaining without employer interference. Such interference in the past had often assumed repugnant forms. The files of the LaFollette Committee, a subcommittee of the Senate Committee on Education and Labor, which was to investigate violations of free speech and rights of labor during the thirties and early forties, testify to the role which the labor spy, the professional strike breaker, the *agent provocateur*, the private detective, the pseudo-patriot, the vigilante, and the local police were allowed to assume in labor relations.

The promotion of unionism as manifested in the series of legislation discussed above was not arrested until the passage of the Labor Management Relations Act of 1947, often referred to as the Taft-Hartley Act. This law, which was enacted over a presidential veto, substantially amended the National Labor Relations Act. It made the employer's obligation to bargain with the union dependent upon the fulfillment of certain conditions on the part of the latter and restricted union activities otherwise. The list of unfair labor practices, which under the Wagner Act was limited to those committed by employers, was supplemented by practices committed by unions. Under the 1947 legislation, government regulation of industrial relations became more stringent and more detailed. It also granted the individual employee or union member a standing that he did not enjoy before the law under the earlier legislation. Most of the innovations tended to weaken the power of unions. The National Labor Relations Board, while retained in name, lost some authority, which was transferred on its general counsel.

Except for revisions of minor points, no major labor legislation was passed by the Congress during the ensuing twelve years. By 1959, however, the growing concern with wage-induced inflation, with corruption in a

few unions, and with the strength of labor organizations in general—which was considered excessive in many quarters—led to the enactment of the Labor-Management Reporting and Disclosure Act of the same year, known also as Landrum-Griffin Act. Like its forerunner, the Taft-Hartley Act of 1947, the 1959 Act is a milestone on the road towards public regulation of labor unions.

The Landrum-Griffin Act contains a "bill of rights" designed to promote democratic procedures in trade-unions by strengthening the positions of the individual members. To fend off corruption, other provisions establish safeguards against improper use of union funds, and for regular elections of union officers. The election of unsuitable people to union office is prohibited, and the requirements for financial reporting are made more stringent. A third group of provisions restricts unions in the use of such weapons as organizational picketing and secondary boycotts.

During the twelve-year interval between the passage of the Taft-Hartley Act and the Landrum-Griffin Act, the principal modification of our labor laws did not originate with the Congress, but with the National Labor Relations Board. With the personnel of the Board changing under the influence of the replacement of the Democratic national administration by a Republican one in 1953, the Board drastically reduced the range of cases over which it assumed jurisdiction. The Board has discretion to decide in which cases, of those affecting interstate commerce, it will exercise jurisdiction. Its policy of relinquishing jurisdiction, especially over smaller companies and their employees, meant, in effect, the withdrawal of federal protection of collective bargaining from a substantial segment of the labor force. In the absence of federal authorization by legislation, the gap created thereby could not be filled by state legislation or state labor boards, since these have no jurisdiction over cases affecting interstate commerce.[12]

There was thus created a "no man's land" in industrial relations, a "twilight zone" in which irresponsible practices and racketeering would not be challenged before state or federal agencies.[13] The National Labor Relations Board in 1958 reassumed in part the exercise of its jurisdiction over smaller firms. The remaining no man's land was assigned by the Landrum-Griffin Act to the jurisdiction of the states, turning it into what often amounts to a hostile territory, since the legislation of the states, on the whole, is considerably less accommodating to labor than is that of the nation.

Internal Relations of Unions. The rights and duties of unions can be subdivided into two broad categories. They are either internal, in the sense that they refer to the relationship of union members to the union; or they are external, that is, pertaining to union relations with the outside world. The external relations can again be subdivided into relations with other

[12] *Guss* v. *Utah Labor Relations Board*, 353 U.S. 1 (1957).

[13] Address of Isador Lubin before the Association of State Labor Relations Agencies, October 16, 1957.

unions, or with the employer, or with the public at large as represented by the government. We will consider first the internal relations of unions.

Union spokesmen interpret their organizations as unincorporated associations of individuals that should be ruled by the majority of their members, with adequate safeguards for the protection of the minority from abuse. However the internal relations of unions are not always subject to democratic procedures. Unions have become large organizations, whose elaborate bureaucratic apparatus resembles those of the government and big business. Unions, national and local, hold assets that add up to several billions of dollars. The assets of the mine workers union, for example, are about $110 million, plus again as much in funds designed to finance the union's welfare and retirement program. The ladies garment workers union's assets are some $88 million plus $235 million in welfare funds. The mine workers union controls the third-largest bank in the nation's capital. The teamsters union, with assets of close to $40 million, spent more than $240,000 on lobbying in 1959, when the Landrum-Griffin bill was debated in Congress. This was $100,000 more than the next biggest spender disbursed for lobbying in that year, and by far the largest amount of expenditure reported by any lobbying group since 1953.

Union leaders often are aggressive individuals as much attached to power and prestige as their counterparts elsewhere in public life. The salaries of a number of them, while far below those of top corporation officers, are a multiple of the pay of the Secretary of Labor. Their office has on occasion been a hereditary one, with the son following the father as union president. The very size of union operations and membership often frustrates the vigorous discussion of important issues with the bulk of the members as participants, just as it does in the large corporation.

Those in control of large unions also hold in their hands a good deal of patronage. Unions, being man-made institutions, have the faults that go with human creations. Boss rule exists, although it is not common; and on occasion it has degenerated into corruption and gangsterism, just as it does in local politics. The size factor, which has been an important factor accounting for these perversions of unionism, was also responsible for the infiltration of communistic elements into the leadership of a few unions during the 1930's and 1940's. The Communists, though a small minority everywhere, were able to gain positions of influence because of inertia on the part of the majorities.[14]

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[14] Under the Taft-Hartley Act of 1947, before it was amended by the Landrum-Griffin Act of 1959, the protection of the Wagner Act was available to unions only if the officers filed affidavits attesting that they were not Communists or members of any other group or organization advocating the overthrow of the government by force or violence. On the whole, the unions followed the trend of legislative thinking by taking vigorous action against Communists. The CIO expelled eleven Communist-dominated unions. Ten of these had met the non-Communist oath requirement after having ap-

The nominal power of union executives is illustrated by the slow turnover of the leading personnel of many unions. While the union cannot expel a worker and cause him to be discharged from his job—unless he ceases to pay union dues—union members who resist a dictatorial boss have been brought to trial on "broad and vague charges." However, the appellate procedure in the great majority of the unions is effective. Abuses are more likely on the local level than on the national one. Abuses can be reformed from within as a result of greater interest and participation of the members in union affairs. Mere maturity of unions is of little help, because "most unions tend to become less democratic, more highly centralized, and more autocratic with time."[15]

The federal legislator considered it inopportune to rely exclusively on reform from within the union movement. The Taft-Hartley Act of 1947 had denied unions access to the procedures before the National Labor Relations Board and thereby withheld from them the protection granted by the Wagner Act unless they fulfilled certain requirements such as filing of financial statements and non-Communist affidavits. Under the Landrum-Griffin Act of 1959, a bill of rights assures union members the right to speak freely in union meetings and take part in the election of officers. Only after a majority vote may union dues be raised. A union member who has been deprived of his rights may bring a civil suit in federal court against the union officers. Furthermore, all labor unions must file annual financial reports with the Secretary of Labor. If there are financial dealings between union officers and employers, a report of these must be filed with the Secretary. Union officers handle union funds subject to the accountability laws governing trustees—that is, they may not use such funds for their own purposes. No union or employer funds may be used to support a candidate for union office. Loans from the union to an officer or employee may not exceed $2,000. Restrictions are imposed on the management of local unions or groups of such unions by national officers. All local unions must elect officers by secret ballot at least every three years. National unions must do the same at least every five years. Communists and former Communists and persons convicted of certain crimes may not hold union offices for stated periods of time. The Secretary of Labor has authority to enforce the law by means of civil suits. Moreover, the filing of false reports, the use of

pointed "fellow travelers" instead of party members to office or by means of dubious resignations from the party before the filing of the affidavit. Some union officers received prison sentences for conspiracy to defraud the government in connection with the oath requirement. By denying the protection of the Wagner Act to labor unions found to be Communist-infiltrated, the Communist Control Act of 1954 attempted another solution, which, however, has not proved very effective.

[15] Philip Taft, "Judicial Procedure in Labor Unions," *Quarterly Journal of Economics*, Vol. LIX (May, 1945), p. 384; "Opposition to Union Officers in Elections," *ibid.*, Vol. LVIII (February, 1944), pp. 246–64.

threats or coercion to deprive a union member of his rights, and a number of other violations of the law are made criminal offenses punishable by fine and imprisonment.

These measures, it is hoped, will strengthen the position of the individual union member and prevent dishonest union officers from using union funds for their own purposes. What of the policing power of the AFL-CIO over national union affiliates that give cause for complaint? Apart from persuasion and exhortation, the only effective weapon which the AFL-CIO has on hand is the expulsion of the offending union. Expulsion, however, is a two-edged sword if the expelled union is a large and powerful one, such as the teamsters union—1½ million members and the largest in the country—which was expelled by the AFL-CIO in 1957. In spite of revelations of widespread corruption, the leadership of this union was not dislodged by the rank and file, nor did the union fail to increase in membership after the expulsion. Contrariwise, it was able to consolidate its position in the highly important field of transportation, aligning itself with unions active in transportation by sea and air, and ready at any time to emerge as the nucleus of a new federation rivaling the AFL-CIO. Moreover, many affiliates of the AFL-CIO continued to rely on the support of the teamsters union in their own organization drives and strikes. Indeed, when in 1959 the AFL-CIO leadership was confronted with the problem of how to police the carpenters union—a union with 850,000 members, whose president was under indictment in a highway land scandal—nothing was done to expel this union, or to cause it to terminate its affiliation with the AFL-CIO, lest it might join the teamsters in a rival federation. In the light of recent experience, the chances for effective self-policing on the part of the AFL-CIO are strictly limited, although the federation has successfully disciplined a number of smaller national unions.

Interunion Relationships. One problem arising from the multiplicity of unions is that of jurisdictional disputes. Such disputes spring from a union's desire to expand its field of action, from the rise of rival unions, and from the vagueness with which their jurisdiction may be circumscribed. Uncertainty about the delineation of jurisdiction may also develop under the influence of technological change. An example of this sort is the shift from wood trim in building construction to metal trim, an innovation that led to jurisdictional disputes between the carpenters union, which had done such work in the past, and the metal trade organization. Such conflicts are often bitter, because men will fight for their jobs, especially so in times of depression when the labor market is overcrowded. Jurisdictional disputes of this type will meet a more generous understanding than those between unions which both claim to represent a majority of the workers. In the latter case the proper settlement is by means of election.

There are so many occasions for jurisdictional disputes that they were by no means unusual when the AFL was the only great federation of unions

and presumably had delineated the fields of action of its affiliates. Some jurisdictional disputes have indeed persisted for decades. The Carpenters and Joiners Union, for example, has been in a dispute with the International Association of Machinists since 1913 about the question of which of the two unions could claim for its members the installation of certain machinery. The prevention or settlement of such disputes is no easy matter, since the national unions often show unwillingness to abide by the decision of an outsider or of an organ of the federation with which they are affiliated. The AFL has often favored the larger union in a dispute.

At first glance, it may appear that the employer would stand to gain in bargaining strength if rival unions compete for jurisdiction. Often, however, the ensuing conflicts are fought on the back of the employer or of the public at large. Both are not responsible for them and can do little to appease the fighting parties. Sometimes jurisdictional disputes are carried on with especial violence, and not seldom much harm is done to the business interests of outsiders. This may happen, for example, when a union refuses to process, handle, or transport goods produced by members of a union that is the rival of another one which is affiliated with the same federation as the first. The public thus has come to regard jurisdictional disputes as particularly obnoxious; although their importance, if measured in terms of man-days lost on account of jurisdictional strikes, has never been considerable. Jurisdictional strikes are branded as an unfair labor practice by the 1947 legislation. Indeed, when a jurisdictional dispute is involved in the charge of unfair labor practices, the National Labor Relations Board must decide the issue within ten days unless the parties voluntarily adjust their differences before.

Jurisdictional disputes are conflicts between unions about the right to perform certain work. They must not be confused with union "raiding"—attempts to transfer a group of employees from one union to another or from one federation to another. Union raiding occurred frequently under the dual system of unionism which prevailed until 1955, although there were instances of raiding also between unions of the same federation. The 1955 merger, it was hoped, would put an end to the practice. In spite of efforts—unsuccessful thus far—to settle such disputes by arbitration, union raiding has continued to plague the AFL-CIO after the merger, with craft unions banding together to dislodge an industrial union and vice versa. Where job opportunities have been shrinking owing to automation and the displacement of production workers, raids have been executed with especial bitterness. If the practice is not harnessed, it may contribute to a split among the AFL-CIO. If the raid is successful and the raiding union elected the representative of the workers by majority vote, action on the part of the federation to undo the raid may run counter to the decision of the National Labor Relations Board, which is under duty to certify that the properly elected union is the bargaining agent of the workers.

Relations between Unions and Employers. The relations between unions and employers consist primarily of bargaining for wages, hours, and other terms of employment, with the aim of arriving at a collective agreement. The latter, which may assign important functions to the union in conjunction with grievance procedures and other matters, guides the relations between the employer and the individual worker. Both the employer and the union are under duty to bargain collectively in good faith, that is, with the honest intention to arrive at an agreement.

1. The first question that arises in this connection pertains to the proper definition and selection of the union with which the employer is to bargain collectively. He must bargain with a union that represents the majority of employees in an appropriate bargaining unit—be it the plant, the craft, the firm, or the industry. The appropriateness of the bargaining unit is determined by the National Labor Relations Board, whose discretion is limited by a provision requiring that a group of craftsmen desiring separate representation must not be denied a separate bargaining unit. Other restrictions on the Board's discretion are imposed with respect to professional employees, guards, and supervisory personnel. Professional people must be accorded a separate bargaining unit, unless they favor another arrangement by majority vote. Guards must be represented separately regardless of their wishes. Foremen and other supervisory personnel are not considered employees for the purposes of the protective legislation. If they form a union the employer may bargain with it or refuse to do so with impunity. If they are admitted by the rank-and-file union, the employer may discriminate against them and refuse to have the terms of their employment included in collective agreements.[16]

In the case of dispute the representative character of a union is ascertained by means of an election sponsored by the National Labor Relations Board. If the employer is in doubt about the continued representation status of the union, he can challenge it every year by requesting a new election.

2. In many industries, more than one enterprise is partner of the collective agreement. Collective bargaining may indeed be industry-wide or on a scale embracing a sizable proportion of an industry's enterprises. For example, from 80 to 100 per cent of all workers in the clothing industry, in coal mining, longshoring, shipbuilding, and in the maritime industries are covered by agreements made with associations of employers. In a number of cases, these practices are of old standing, having originated fifty and

[16] Enterprise has grown to such a size that foremen often are out of touch with management. They do not participate in policy decisions and are hired, fired, and disciplined like ordinary employees. Foremen suffered relative deterioration of their pay during the war and postwar boom. The development of foremen's unions was first impeded by the National Labor Relations Board, but in subsequent years they were recognized regardless of affiliation with a rank-and-file union. The 1947 legislation changed their status as indicated in the text, aiming at a closer attachment of their members to management.

more years ago. A more recent development is the establishment of regional or local employers' associations that cut across industry lines and bargain with unions on behalf of their members.

The merits and disadvantages of industry-wide collective bargaining have been widely debated. Its opponents point out that the stabilization of labor cost entailed thereby is a restraint of competition. Firms that are unable to match the wage rate set by such agreements presumably find themselves at a disadvantage, which might sooner or later force them to merge with more efficient enterprises. On the other hand the position of firms that are able to pay the standard rate is strengthened; they are no longer exposed to the price cuts of competitors to the extent to which these are made possible by lower wage rates. Industry-wide bargaining might also facilitate industry-wide strikes. These are often in the nature of economic upheavals and may necessitate compulsory arbitration.

The advocates of industry-wide collective bargaining insist, however, that the stabilization of wage rates is a wholesome development in that it causes the efficiency of management to emerge as the most important factor in competition. Industry-wide arrangements tend to minimize the unrest which often attends the gradual diffusion of rate changes throughout many enterprises. Where they are of long standing, they have often been an element of stability and peaceful co-operation. They generally provide machinery for the settlement of disputes. Indeed, many employers and trade associations are favorably disposed to them. Unions often prefer them, because they eliminate opportunities for the invidious comparison of the attainments of various locals; and also because they provide a measure of protection: the union can no longer be dislodged as the result of attacks on a multiplicity of small fronts.[17]

In the absence of industry-wide collective bargaining, a "pattern" is frequently set by an agreement between the union and an outstanding member of the industry. Examples of such patterns are the escalator clause and the improvement factor, both initiated in agreements between General Motors Corporation and the United Automobile Workers and subsequently adopted by other firms. Concerns such as United States Steel, General Motors, or General Electric sometimes set a "wage pattern" which the smaller concerns will follow.

3. Some foreign countries—New Zealand and Queensland since 1917 and New South Wales since 1953—make union membership of employees mandatory by law. In the United States, such compulsion would be considered repulsive. But here, too, unions are desirous of security, and in the course of time numerous arrangements have developed designed to protect their status. The more prominent of these include the closed shop, which is unlawful under the Taft-Hartley Act; the union shop; and the maintenance-

[17] See Richard A. Lester and Edward A. Robie, *Wages Under National and Regional Collective Bargaining*, Industrial Relations Section, Princeton University, 1946.

of-membership agreement. Under the closed shop, all employees must be members of the union at the time of hiring and remain members in good standing during their employment. The union-shop rule requires that employees join the union within thirty to sixty days after the agreement, or after having been hired, and remain members in good standing during the period of their employment. In both cases, there are often additional provisions requiring that workers must be hired through the union. Under the maintenance-of-membership clause, all employees who are members of the union at a specified time after the agreement is signed, or who later join the union, must remain members in good standing during their period of employment.

The closed shop thus grants a maximum of security by preventing the hiring of people who are not union members. The union shop makes membership a condition of employment after the lapse of a certain period of time. The maintenance-of-membership agreement compels workers who are union members to remain in the union. These and similar arrangements have become extremely widespread; in a 1959 study, four of every five union agreements under investigation contained a security clause.[18]

Often union-security agreements are combined with the automatic checkoff of union dues or with the deduction of dues from the pay upon written authorization on the part of the workers.

There has been considerable dissension about the justification of union-security agreements. Those who are opposed to them point out that it is the union, not labor, which is given security; that the agreements unduly enlarge the power of union leaders over unruly members; that it is a strong, not a weak union that is capable of obtaining a union security clause from the employer; that a worker who wants a job that is covered by the closed shop has no choice but to join the union; and that before the expiration of a contract, workers who would want to change their bargaining representative and are likely to ask for an election are in danger of being expelled from the union.

Union spokesmen, on the other hand, insist that employers who oppose union-security agreements do not act so on principle but desire to weaken the union. They point out that employers in the past were favorably disposed to closed-shop agreements with company unions; that union security is the outcome of a contract freely negotiated with the employer; that few unions protected by a closed shop are closed unions; that union-security agreements reflect the will of the majority of the workers, since the majority is represented by the union; that they are necessary for purposes of protection against antiunion employers, relieving the union from the burden of self-defense and organization drives; that they are necessary also to

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[18] "Union-Security and Checkoff Provisions in Major Union Contracts, 1958–59," U.S. Department of Labor, *Bulletin* No. 1272 (Washington, D.C.: U.S. Government Printing Office, 1960).

enable the union to live up to the contract by restraining undisciplined members; that all workers who are benefited by the union's activities should contribute to its maintenance; and that the stabilization of the employer-union relationship makes for harmonious relations, as illustrated by past experience.

While it is hard to reach perfectly definitive conclusions in a matter which essentially is one of individual judgment, opposition to union-security agreements has been strong enough to introduce severe restrictions in the 1947 legislation. The closed shop is outlawed; employers who would sign a closed-shop contract and subsequently, in their hiring or firing, discriminate against workers who are not members of the union, would commit an unfair labor practice—and so would a union that induces an employer to discriminate in this manner. A clear-cut exemption is stated only in favor of the union shop; by implication this applies also to the still more moderate maintenance-of-membership agreement.

Once a union shop is established the union still must not insist on the discharge of a worker so long as he offers to pay his regular dues. But should he not pay them, he can still not be discharged if the employer has reasonable ground for believing that he was not offered admittance to the union on the same terms and conditions generally applicable to other members. If a union which operates under a union-shop agreement charges its members excessive dues, it commits an unfair labor practice. The automatic checkoff of union dues is no longer lawful. The employer must obtain a specific assignment in writing from each individual employee. This is one of the rare instances where the Taft-Hartley Act imposes criminal penalties on violators.

These regulations of union-security arrangements, restrictive as they are, are still surpassed in stringency by the legislation of some nineteen states, primarily southern ones, which have outlawed the union shop. Where the state law is stricter than the federal regulation of union security, the state law will govern. This rule prevails because of an express authorization of the Taft-Hartley Act to the states in matters of union security. The state laws, known as "right-to-work" laws, have frequently been under attack. The Secretary of Labor, in an address to the CIO convention of December 7, 1954, pointed out that they do not create any jobs, that they result in undesirable limitations upon the freedom to bargain collectively, and that they undermine the basic strength of labor organizations by restricting union security.

4. The 1947 legislation outlaws payments by an employer to the union and threatens violators with criminal penalties. As noted before, an exemption is stated in favor of the checkoff of union dues, provided certain requirements are met. A second exemption legalizes employer contributions to the welfare funds maintained by many unions for the provision of medical care, pensions, and insurance benefits to their members. The employer

may not make such contributions—and the union may not accept them—unless he is given equal representation in the administration of the fund, and provisions must be made for adjudication by some neutral person in the case of a deadlock.

5. Collective agreements often provide for payment of wages during waiting periods or for the employment of people not actually needed on the job. Some of these arrangements are referred to as "featherbedding"; others, such as the so-called "call-in" practice which grants pay for the time during which workers are not assigned tasks, are generally acceptable and hallowed by traditions of long standing. The Taft-Hartley Act stamps as unfair labor practice demands for pay, "in the nature of an exaction, for services which are not performed." The Supreme Court interprets this rule rather restrictively and refuses to outlaw such practices as the setting of "bogus" type by printers or musicians' demand for work when none is to be performed. In the case of the printers the Court held that actual—though useless—work was performed by the setting up of forms that duplicated available "mats." In the case of the musicians the union had followed a general practice by demanding the hiring of a local orchestra as a condition for permitting a "name band" to appear.[19]

The whole issue of featherbedding has assumed a new urgency as the result of automation and other manifestations of swift technological change. Unions, fearful of unemployment among their members, occasionally try to resist technological change by pressing for adherence to old, established working rules. In the field of railroad transportation, for example, the introduction of diesel locomotives and of other types of modern equipment has placed the jobs of the firemen into a precarious position, and similar instances could be cited from other industries where unions insist on the retention of personnel made redundant by technological progress.

6. The preceding paragraphs refer to the contents of collective agreements that are regulated by legislation. Additional guidance for the behavior of employers and unions is provided by a list of unfair labor practices. Some of these may be committed by the unions or the employers, others, only by either one of these groups. Neither employers nor unions may refuse to bargain collectively, and both are forbidden to interfere with the workers' right to join or refrain from joining a union. Employers may not discriminate against workers because of their union membership or because of the lack of such membership, and unions may not induce the employer to discriminate in this manner. As noted before, an exception is made in favor of the union-shop agreement. The employer may not discriminate against employees who file charges or give testimony against him. The following are all union practices considered unfair: interference

[19] *American Newspaper Publishers Association* v. *National Labor Relations Board*, 345 U.S. 100 (1953); *National Labor Relations Board* v. *Gamble Enterprises*, 345 U.S. 117 (1953).

with the employer's right to select such representatives as he pleases for negotiation; strikes designed to force employers or self-employed person to join a labor organization; secondary boycotts; excessive initiation fees, demands for wages to pay for services not rendered; "hot cargo" contracts;[20] certain types of picketing; and jurisdictional strikes. Both employers or unions commit an unfair labor practice if they call a lockout or strike before the termination of a sixty-day period which has to expire before these weapons may be used with the view of pressing for a change in the terms of employment. These matters will be more fully discussed in the following section devoted to industrial conflict.

In this context, there remain two points to be considered: political activities of unions, and the position of those employee groups that are exempt from the provisions of the Wagner and Taft-Hartley Acts.

Political Activities of Unions. As unions have grown to large-scale organizations, their financial support of candidates in Presidential and Congressional elections and primaries may carry considerable weight. Such support is unlawful under the provisions of the Taft-Hartley Act. Unions may neither make political contributions nor direct expenditures. Their position in this respect is equal to that of corporations and more restricted than that of unincorporated businesses and employer organizations. The prohibition of direct expenditures apparently does not include support of, or opposition to, candidates in union journals financed by the dues of members. Nevertheless, these provisions have created considerable resentment in union circles. They are considered unconstitutional by some labor spokesmen, who have refused to abide by them.

Position of Certain Labor Groups. The federal regulation of industrial relations in the Wagner and Taft-Hartley Acts applies only to industries engaged in interstate commerce, a concept whose significance will be more fully explored in Chapter 16. There is, thus, no federal guarantee of collective bargaining for local industries. These are under the jurisdiction of state laws, some of which contain provisions similar to those of the federal legislation.

Government employees form another group that requires special treatment. They may organize in unions, and the latter may present grievances; collective bargaining in its full sense is, however, not possible for public employees, because their remuneration and other terms of employment are regulated by appropriation laws and other acts of the legislatures. Federal employees are expressly enjoined from striking. If they do go on strike, they will be discharged immediately, lose their civil service status, and are not eligible for re-employment with the federal government during a period of three years. Several states follow a similar policy with respect to the participation in strikes by their employees.

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[20] See below, p. 234.

The industrial relations of railroad employees are regulated by a special law, the Railway Labor Act of 1926. Provisions are made for mediation by a National Mediation Board. Another agency, the National Railroad Adjustment Board, is charged with the interpretation of collective agreements in the case of a dispute over one.

INDUSTRIAL CONFLICT AND ITS SETTLEMENT

Representation Cases and Unfair Labor Practices. A union's claim to be the proper bargaining agent for the labor in a particular firm, industry, or craft is often controversial. Representation questions of this kind and charges of unfair labor practices are liable to give rise to industrial conflicts, and some weapons used in such conflicts are themselves in the nature of unfair labor practices. The speedy settlement of representation cases and redress against unfair labor practices is thus indispensable for reducing instances of industrial conflict. The law provides that matters pertaining to the proper representation of employees be decided by the National Labor Relations Board. This agency, a quasi-judicial tribunal of five members, maintains regional offices to which field examiners are attached. Employees of the Board, though appointed by the latter, are under the direction of its General Counsel.[21] Representation procedures are initiated by the filing of a petition by the employer, employees, or a union, addressed to the National Labor Relations Board. The Board then investigates the petition and holds hearings. It then either dismisses the petition or decides that an election should be held. When a union receives the majority of the votes cast, it is certified by the Board as the exclusive bargaining agent.

The employer's refusal to bargain with a union thus certified would amount to an unfair labor practice. Other instances of unfair labor practices have been enumerated in the preceding section. If a party feels grieved by such a practice, it will file a charge with the National Labor Relations Board's regional office, which will issue a formal complaint. Should it refuse to do so, an appeal may be launched to the General Counsel, who has final authority in this matter. After the complaint has been issued, a hearing will be held by the Board or a trial examiner. The Board then will either dismiss the complaint or issue a cease-and-desist order. Neither the commission of an unfair labor practice nor disobedience to an order of the Board is a criminal offense. Board orders are enforceable by the Federal Circuit Court of Appeals; once this has confirmed the Board's order, violation is punishable as contempt of court, although appeals to the Supreme Court in certain issues may be possible.

Unions in the Courts. Unions are unincorporated associations and have no legal personality. At common law, they can neither sue nor be sued. Federal statutes, however, allow suits by or against unions before the fed-

[21] This rule does not apply to the field examiners.

eral courts if certain requirements (diversity of citizenship, etc.) are given, and in the great majority of the states, there are similar statutes granting unincorporated associations unreserved status in the state courts. The Taft-Hartley Act went one step further and allows, without restrictions, suits by or against unions before the federal courts. The Act also affirms the responsibility of unions for acts of their agents but imposes it regardless of authorization or ratification. Money judgments against the union can be collected only from union funds, not from the individual members.

Compared with the situation that prevailed before the passage of the Taft-Hartley Act, damage suits against unions thus are facilitated. If the collective agreement contains a no-strike clause, as it often did in the past, unions presumably become liable for damages arising from unauthorized strikes. But the employer is likewise liable for violations of union agreements. These generally impose a multiplicity of duties on him, and there are thus manifold opportunities for damage suits based on alleged violations.

In the past more than now, employers have used the injunction as a most effective weapon against unions. An injunction is a court order forbidding an action that the court considers a violation of rights. Such an order will be issued if irreparable damage threatens; if other legal remedies are inadequate; if the interference with the rights of others threatens to continue; or if it involves a multiplicity of actions. With the help of injunctions, employers in the past often were successful in breaking strikes. As has been seen the use of this weapon was much restricted by the Norris-LaGuardia Act of 1932, so that it was virtually of no use to employers seeking relief in the federal courts. The Taft-Hartley Act authorizes the National Labor Relations Board to petition the federal courts for an injunction whenever it has issued a complaint in an unfair-labor practice case. In the case of certain unfair labor practices the Board is under duty to seek such relief even before a complaint has been issued.

Weapons Used by Employers in Industrial Conflicts. Not all means used by employers or unions in industrial disputes culminate in procedures before the courts. The most important disputes arise on account of wages, hours, and other conditions of work; and the courts have no power to fix these in the absence of an agreement among the parties. Economic pressure thus becomes the principal weapon used in industrial conflict, and from the point of view of the employer the lockout represents the most powerful pressure he can bring to bear upon employees. A lockout is the dismissal of all or certain groups of employees. It is in the nature of this weapon that it is likely to be wielded only in extreme cases, when other means of redress have failed. The lockout, especially if it entails a complete shutdown of the business, is financially harmful to employees and employer as well.

Less drastic weapons include discrimination against union employees, blacklisting of intractable persons, use of strike breakers, espionage, main-

tenance of private police systems, and support of company unions. The use of most of these weapons is restricted by federal and state legislation. The Wagner Act and many state laws prohibit discrimination and blacklisting as coercive measures against union members, and company unions are in effect outlawed. The Byrnes Act of 1936 prohibits the interstate transportation of strike breakers.

The Strike and Other Weapons Used by Employees. The principal weapons of labor are the strike, the "slowdown," picketing, and the boycott. The strike, a concerted refusal to work, may involve a single craft, a plant, a firm, an industry, or all labor. The latter type is called general strike. A sympathetic strike occurs when union B goes on strike to support union A in a conflict. Members of union A may be employed in the same or in another concern. Jurisdictional strikes are caused by disputes between rival unions. Sit-down strikes occur when striking workers refuse to leave an employer's premises. "Wildcat" strikes are strikes not authorized by the union. "Quickie" strikes occur ahead of attempts to settle grievances by negotiation and other peaceful means.

Under the Wagner Act the right to strike was virtually unlimited; while the employer's right to lock out was limited, in effect, to lockouts for economic reasons. As will be noted in the following section, the Taft-Hartley Act does not deny labor the right to strike but imposes certain restrictions on the exercise of this right.

Figure 29 supplies strike statistics for the United States. The amount of working time lost on account of strikes is generally less than half of 1 per cent of the total working time. In percentage of over-all aggregates the amount of time lost through strikes thus may seem negligible. Calculations of this sort may be deceptive, however, since the impact of a strike may be severely felt in many industries, accounting for much greater indirect consequences.

Periods of intensive organization drives generally are characterized by an increase in the number of strikes. The development during the thirties confirms this observation. The great upsurge of strikes during the postwar boom of the forties, which did much to sway the legislature to favor the changes in the Wagner Act brought about by the Taft-Hartley Act, reflected rising prices and pressure for higher wages.

Do strikes pay? The economist of the General Motors Corporation has calculated that a strike of the United Automobile Workers from November 21, 1945 to March 13, 1946 caused the employees a loss of earnings that could not be made up in less than eight years of work at the wage increases won through the strike. This example is apt to illustrate an observation made in the introductory section of this chapter, namely, that union policies cannot adequately be interpreted if the union is considered an agent that aims at the short-run maximization of monetary quantities. However the question of whether strikes "pay" cannot be answered in the form of a

general statement, even if the union is assumed to lose out in the conflict. A strike may pay, not in short-run financial terms, but in terms of principles won. It may serve as a warning to the employer not to try a certain action.

IDLENESS ON ACCOUNT OF WORK STOPPAGES

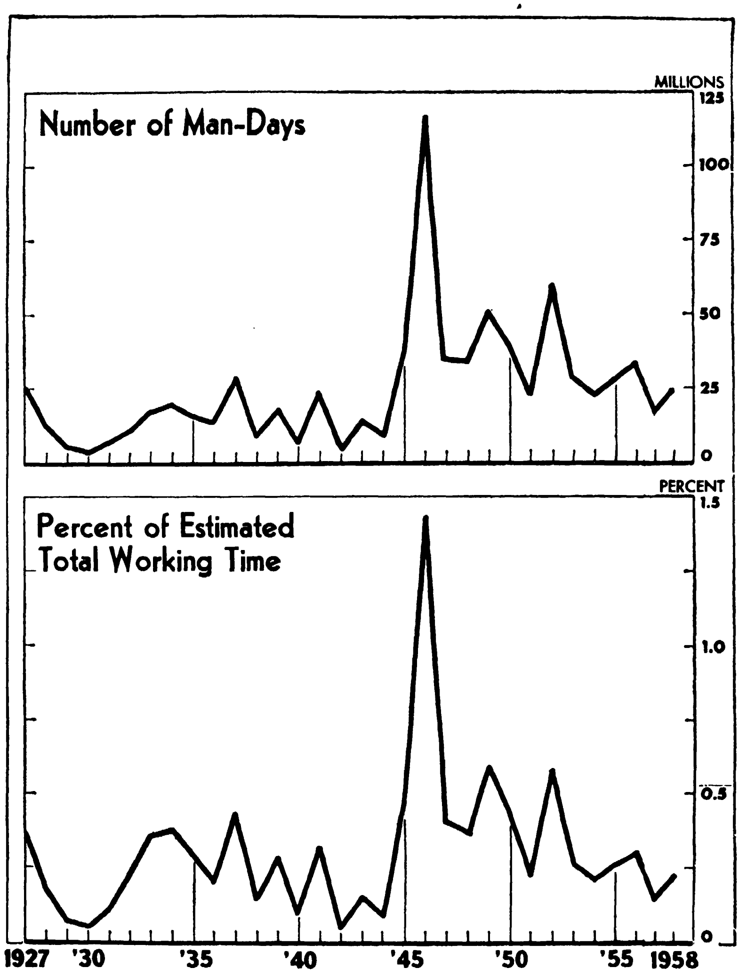

FIG. 29. The amount of working time directly lost on account of strikes and other stoppages usually is less than ½ per cent a year. From U.S. Department of Labor, *Bulletin* No. 1258, 1959, p. 7.

From a more narrowly financial point of view, much will depend upon the possibility of making up later the time lost during the strike. Other relevant factors include the seasonal character of an industry, the availability of substitutes, and the possibility of postponing the consumption of goods

produced by the industry. A strike may stimulate related branches of production; if an industry is plagued by persistent strikes, the use of substitutes may be encouraged.

The "slowdown," another weapon of labor in industrial conflicts, is the concerted slackening of operations. Under the Taft-Hartley Act, a "slowdown" is considered the equivalent of a strike. Picketing, still another weapon, is the patrolling of an establishment involved in a labor dispute, designed to prevent the entry of workers and draw the public's attention to the conflict. The Landrum-Griffin Act of 1959 restricts certain types of picketing, especially those in support of a union's organization drive or of workers not employed by the picketed concern. Apart from these restrictions, picketing is lawful unless it is accompanied by fraud and violence. The Supreme Court in the past was inclined to make numbers the decisive element in its decisions concerning the lawfulness of picketing and has outlawed mass picketing. In later years, less emphasis was placed on numbers or mass picketing and more on violence, coercion, and intimidation. Picketing is held to be an exercise of the constitutional right of freedom of speech and communication, indispensable in this form in modern industrial society. State legislation which completely outlaws picketing is unconstitutional.

The boycott is the concerted attempt to prevent the use of the products of an employer with whom a union is involved in industrial conflict. In the past, boycotts were often made by outside parties, that is, groups of labor other than those directly involved in the conflict. This so-called "secondary" boycott is branded as unfair labor practice in the Taft-Hartley Act, but, in addition, under the Landrum-Griffin Act of 1959, the prohibition applies not only to union pressure on secondary employees, as in effect it did under the original Taft-Hartley Act. In addition, union pressure on a secondary employer or agreements with him are also outlawed. This provision put an end to the so-called "hot cargo" contracts. Under these, an employer, for example, a trucking concern, would make an agreement with the teamsters union, promising not to handle goods designated by the union as "hot," that is, originating from a company involved in a labor dispute. The hot cargo clauses gave much support to the teamsters union's own organization drives among warehousemen and other employees handling merchandise. It also enabled the teamsters to assume a strategic role in support of other unions engaged in organization drives or involved in conflicts with their employers.

Settlement of Industrial Disputes. Industrial disputes may be settled through conciliation, mediation, arbitration, and investigation. "Conciliation," as the word is used by some writers, simply means negotiation by the parties to the conflict. If an outsider is called in the procedure is referred to as "mediation." Other writers use conciliation and mediation interchangeably for negotiations in the presence of a third party, who actively intervenes by suggesting solutions for the settlement of the dispute. Mediation

may be practiced by appointees of the conflicting parties, by state mediation agencies, or by the Federal Mediation and Conciliation Service, an office separated by the Taft-Hartley Act from the Department of Labor and instituted as an independent establishment. Arbitration differs from mediation in that the settlement is made by the outsider, not by the parties themselves. Arbitration procedures may be provided in collective agreements, or they may be decided upon in connection with a specific conflict.

In the United States, all arbitration is voluntary in the sense that it is the outcome of private agreements. But once the parties have submitted their dispute to arbitration, they must abide by the award. In a few countries, most notably in Australia and New Zealand, there prevails compulsory arbitration, under which the parties are required by law to submit industrial disputes to arbitration. A similar experiment was initiated in the state of Kansas in 1920 but was terminated a few years later.[22] Instead of securing industrial peace, it had ushered in an era of violent labor troubles. While experiences abroad were more favorable,[23] there are only a few students of industrial relations who would propose a similar system for the United States. Most collective agreements set up a grievance machinery which often culminates in voluntary arbitration. Compulsory arbitration would run counter to these arrangements; it smacks of forced labor and if it is not obeyed, enforcement must be sought with the help of means rarely used in democratic societies.

Compulsory investigation of industrial disputes as a method leading to their settlement has been practiced in Canada since 1907 and has of late come to the fore in the United States. In Canada, employers or unions in certain essential industries must give at least thirty days' notice of intended changes in employment conditions. After this period has expired, they are still not at liberty to call a strike or lockout but must wait until the issue has been investigated and a report made by a board. Similar "cooling-off" periods have subsequently been provided by legislation in many states, starting with Colorado in 1914 and followed after an interval of over two decades by Georgia, Minnesota, Michigan, and others. A similar device has been incorporated in the Taft-Hartley Act. Regulation of this type has not always proved successful. It is presumably based on the notion that strikes are called in haste. Actually the more important strikes are carefully planned maneuvers that often involve an element of surprise. Under the cooling-off provision, labor is deprived of the opportunity to utilize this important factor. Proper timing may spell the success or failure of a strike. Moreover the need to live up to a number of formal requirements may tend to inflate

[22] The Supreme Court, in a case concerning a meat-packing firm, outlawed compulsory arbitration on the ground that the industry was not affected with a public interest. *Wolf Packing Co.* v. *Court of Industrial Relations*, 267 U.S. 552 (1924).

[23] See A. E. C. Hare, *Industrial Relations in New Zealand* (London: J. M. Dent & Sons, 1947); Mark Perlman, *Judges in Industry: A Study of Labour Arbitration in Australia* (Melbourne: Melbourne University Press, 1954).

relatively minor differences into full-blown labor disputes. And if the waiting period is rather lengthy, the strike becomes an ineffective weapon in many industries, especially in those affected by seasonal fluctuations or where there is much opportunity for the accumulation of reserve stockpiles.

Notwithstanding these objections the Taft-Hartley Act provides for cooling-off periods as well as for compulsory investigation. Two procedures are outlined, one for general cases and another for national emergencies. Under the general procedure, unions or employers who wish to change the terms of employment must serve written notice on the other party sixty days before the change can become effective. If the issue remains unsettled after thirty days, the federal and state governments must be notified. Employees as individuals can, of course, lay down their jobs at any time. But if they go on strike before the sixty-day period has expired, they can be dismissed; and the employer is not obliged to rehire them. If an employee acts improperly during the cooling-off period, he is threatened by loss of his job. The employer, on the other hand, is, in the case of such an action, exposed to a formal complaint which after delay may result in a cease-and-desist order of the National Labor Relations Board, eventually to be enforced by the courts.

A more elaborate procedure prevails in cases where a strike or lockout, or the threat of it, affects substantially an entire industry and imperils the national health or safety. In these cases the President of the United States is authorized to appoint a board of inquiry. A report is made, filed with the Federal Mediation and Conciliation Service, and submitted to the public. The report does not contain any recommendations. The idea behind this arrangement is that, if recommendations were to be forthcoming, the parties might be discouraged from bargaining in earnest or from arbitration, because each would deem it advantageous to wait first for the recommendations of the board.

Subsequently the President may direct the Attorney General to petition the courts for an injunction prohibiting the threatened or existing interruption of essential production. The board is then reconvened to make a second report within sixty days. This is again made public, and within fifteen days the National Labor Relations Board takes a secret vote of the employees as to whether or not they wish to accept the final offer made by the employer.[24] This vote is taken separately for the workers of each employer in the industry. After five more days the injunction is discharged. The President then submits a report of the proceedings to the Congress and may make recommendations for action. During the eighty days (sixty

[24] Union spokesmen have raised special objections to this feature. They point out that no large corporation is required to take a ballot among its stockholders before it adopts a particular labor policy.

plus fifteen plus five) during which the injunction is in force, a strike or lockout is prohibited. After this period it becomes lawful; the expectation is, of course, that the dispute will have been settled in the meantime.

This national-emergency feature of the Taft-Hartley Act was invoked seventeen times during the period from 1948 to 1960. Injunctions were sought in thirteen cases. In seven instances a vote of the employees was taken regarding the employer's final offer. In all these instances the offer was overwhelmingly rejected. Only in a few cases were the injunctions clearly effective in bringing about a settlement of the conflict. Critics of the national-emergency procedure consider it as unduly rigid. They would prefer the replacement of the single, detailed procedure by an arrangement that would be more flexible and would make available a choice of procedures that would fit each individual case and thereby secure its early settlement.[25]

SUMMARY

The growth of the business unit and of collective action among businessmen is paralleled by the rise of labor organizations. However, the non-unionized component of the labor force is still far larger than the number of union members. Public opinion and legislation pertaining to labor unions have shifted from opposition to neutrality, toleration, and encouragement. The present stage of development is characterized by increasing regulation and restraint of the labor movement.

The principal function of labor unions consists of collective bargaining. Unions compensate for the individual employee's weakness. When they succeed in raising wages, this often means that the fruits of increased productivity are distributed to labor. They also have given the individual employee new dignity and a new status.

Industrial relations are regulated by the National Labor Relations Act of 1935, the Labor Management Relations Act of 1947, and the Labor-Management Reporting and Disclosure Act of 1959. The first guarantees collective bargaining and defines unfair labor practices of employers. The second adds a list of unfair labor practices of unions and restricts their power otherwise. The third combats corruption and boss rule in labor unions.

Industrial disputes are settled by conciliation, mediation, arbitration, and investigation.

[25] See Harry H. Wellington, "Labor Disputes: When Should the Government Intervene?" *New Republic*, January 11, 1960, pp. 11 ff.; Sumner H. Slichter, "Revision of the Taft-Hartley Act," *Quarterly Journal of Economics*, Vol. LXVII, No. 2 (May, 1953), pp. 149–80; A. Howard Myers, "Evaluating the Proposed Labor-Law Changes," *Harvard Business Review*, Vol. XXXII, No. 3 (May–June, 1954), pp. 124–32.

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STUDY QUESTIONS

1. In general, what are the two broad methods by means of which unions may try to raise wages and working conditions?
2. Is individual bargaining a realistic alternative to collective bargaining?
3. What is meant by an "improvement factor"?
4. What is the effect of unionization on the wages of the unorganized workers?
5. What is the effect of unionization on productivity?
6. How effective is the "union vote" in political elections?
7. Why has the number of trade-union members been virtually constant in recent years?
8. Samuel Gompers once referred to the AFL as a "rope of sand." What did he mean by this?
9. Has expulsion from the AFL-CIO been an effective means for improving the quality of the labor movement?
10. What are the principal provisions of the National Labor Relations Act?
11. What are the principal provisions of the Taft-Hartley Act?
12. What are the principal provisions of the Landrum-Griffin Act?
13. What is a yellow-dog contract?
14. Why is it so difficult to achieve rule by democracy for the internal relations of unions?
15. What is the difference between jurisdictional disputes and union raiding?
16. What are the pros and cons of right-to-work laws?
17. Is there a right-to-work law in your home state, and if so, what are its provisions?
18. What are the functions of the National Labor Relations Board?
19. What is a hot-cargo clause?
20. Why are strikes undertaken even if they may not "pay" in terms of dollars and cents?

Chapter 11

THE QUEST FOR JUSTICE IN DISTRIBUTION

The modern discussion of income distribution centers largely around the problems created by inequality. It may be paradoxical that these problems pose themselves principally in wealthy societies. Maldistribution of income, its concentration, and redistribution do not tend to become issues of public concern as long as the total quantity available for distribution is small. When it grows to be larger, income concentration is considered obnoxious. Want that is unavoidable is felt as a lesser evil than want that society permits to persist though it is capable of eliminating it. In prewar England, a country inferior in wealth and income to the United States, want was characterized as "a needless scandal due to not taking the trouble to prevent it."[1] As Lord Beveridge, the author of the well-known security scheme mentioned on page 292, has pointed out, the resources of the English wage-earning class were then so large that want could have been abolished "by a redistribution of income within the wage-earning classes, without touching any of the wealthier classes."

But it is not only the desire to eliminate want that inspires those who argue in favor of greater equality in distribution. High concentrations of wealth and income make for class divisions of society that run counter to the democratic spirit. They enable people to acquire positions of great economic power and, from such vantage points, to manipulate the forces of politics.

Moreover, a person's disposition of his income, his consumption and saving, varies with his income level. Of a large income, a larger proportion is saved than of a small one. Greater concentration of in-

[1] William H. Beveridge, *Social Insurance and Allied Services* (American ed., New York: Macmillan Co., 1942), p. 165.

comes encourages the rate of saving, while greater diffusion stimulates consumption. If investment activity slackens, as it may do in wealthy societies where much capital has been accumulated and as it generally tends to do during the depression phase of the business cycle, it is considered helpful to strengthen consumption; and this can be accomplished by reducing the concentration of incomes.

Greater equality democratizes what formerly was luxury consumption; greater concentration makes it a privilege of the wealthy. This is especially important in connection with those goods which, in democratic societies, are considered privileges of all citizens regardless of income: health care and education.

There are some who would go further still and insist that everybody should be guaranteed a decent minimum income, in the form, perhaps, of what may be called a negative income tax. Such a plan would place a floor on poverty without imposing a ceiling on rewards. It is, however, easier to formulate such programs than to implement them by means of acceptable policies. While many people presumably are opposed to concentration of incomes, very few favor complete equality. The field of action lies between these two extremes, but its range is so wide that there is much opportunity for dissent and controversy. Economic science as yet has not arrived at a stage where an optimum income distribution could be defined, and perhaps it will never do so in the future. The economist is thus ill-equipped to contribute to the solution of a dilemma that for long has plagued students of political institutions. Both liberty and equality rank high among ideals of democracy, but they are not easily reconciled. Liberty, if absolute, tends to entail great inequality; and complete equality requires an environment kindred to that of the prison or of military barracks. It is thus one of the greatest tasks of democratic statesmanship to provide conditions under which liberty and equality will both flourish.[2]

Vague as the ideas expressed in the preceding paragraphs may seem, they appear to support what has been called a certain leveling process. But this process must not go too far. In an economic society organized such as is ours, monetary incentives play an important, perhaps the most important, role in inducing people to bring forth their highest efforts. If equality is driven too far, our economic motivation may lose in strength, to the disadvantage of all—unless new motives emerge in place of the strictly economic ones and as forceful as these. There is, furthermore, the family motive, which induces people to build up an estate that they can pass on to their children and heirs. Excessive leveling may frustrate the family motive, thereby drying up a significant

[2] For a more complete discussion of this matter, see William Ebenstein (ed.), *Modern Political Thought: The Great Issues* (New York: Rinehart & Co., 1954), chap. v.

wellspring of economic effort. If we level too much, all of us may lose ground; and the floor beneath us may be lower than it was before.

With this direction of the distributional ideal in mind, we may now turn to the study of the principles that determine the distribution of incomes. Subsequently thereto, facts and figures illustrating income distribution will be presented and long- and short-term trends ascertained. We shall see that income concentration has been much diminished in recent decades. The chapter is concluded with a survey of the principal policies that affect distribution.

PRINCIPLES DETERMINING THE DISTRIBUTION OF INCOMES

For purposes of preliminary clarification, we must distinguish first between functional and personal distribution. Functional distribution *refers to the share in total product or income received by the owner of a productive resource (land, labor, capital, entrepreneurship) in return for his co-operation in the process of production.* Functional distribution thus can be formulated as a problem of relative factor prices. But personal income, an individual's receipts during a given period of time, reflects not only the prices of productive services under his control but also the range over which this control extends. In the absence of slavery, everybody controls his own labor power; the amount of other productive assets under his jurisdiction mirrors the distribution of wealth. Personal distribution thus is determined by functional distribution and by the distribution of wealth.

Of the two, only functional distribution submits to the tools of technical economic analysis, which has produced a general principle for its explanation. All that can be said in general terms about the distribution of wealth is that it reflects a society's legal and political institutions, its culture, and historical development. We will turn first to functional distribution and then consider the distribution of wealth.

Functional Distribution. Economic theory deals with the distribution of income to the various factors of production in the economy as a whole, in a particular industry, and within a single enterprise, using the same principle of explanation for all factors and on all three levels of analysis. Classical economics had failed to explain the size of a factor's reward with the help of a general principle. It preferred to distinguish the several factors of production on the basis of different income payments (rents, wages, profits, interest) that observation showed to exist and then to explain the size of these incomes by means of specific criteria.

The classical economists were also inclined to consider the cost of labor as the principal determinant of the value of goods. During the later decades of the nineteenth century, increasing attention came to be

paid to the subjective valuation of goods by their users. This finally emerged as an important determinant of value. In consequence of this development, factor rewards now came to reflect the value of the goods in whose production the factor had co-operated. With the victory of the marginal principle the demand schedule for factors was identified with their marginal revenue product schedule. .

What does this mean? In brief, so the theory runs, the employment of factors of production is subject to diminishing returns, which set in after the stage of efficient combination of the various factors has been reached. As additional units of a factor are employed, they will only cause diminishing additions to the total value of the product. This addition, or increment, resulting from the last factor hired, is called marginal revenue product. It differs in accordance with the quantity of factors that are employed and tends to fall as this increases. Rewards of the factors will tend to be equal to their marginal revenue product. If their reward is smaller, more of them will be hired, because the resulting addition to revenue is greater than their costs. If the reward is larger than the marginal revenue product, factors will be taken out of employment, because their contribution to revenue falls short of their costs. Since for each level of employment of a factor there is a different marginal revenue product, the latter will indicate the quantity of a factor demanded at different factor prices. Marginal revenue product schedules and demand schedules for factors thus are indentical; they indicate the marginal revenue products as well as the rewards at different levels of factor employment.

The simplicity and generality of the marginal productivity theory of distribution have brought it world-wide acclaim. Here was a theory that on the outset explained the shares of the various factors of production by means of the same principle. Furthermore, it contained a mechanism of self-adjustment that was bound to silence all those who questioned the justice of the prevailing distribution system. If every factor's worth tended to determine its reward, the wind was taken out of the sails of those who pleaded for changes in distribution. The marginal productivity theory thus came to assume a highly apologetic character. But criticism developed soon. The marginal productivity theory, if it is designed to explain reality, has to lose much of its uniform character and must suffer substantial modifications, allowing for differences among the various productive shares. It has contributed little to the analysis of the supply schedule of the several factors. Therefore, it is not a theory of distributive shares but rather an explanation of the demand for the services of productive agents under highly restrictive assumptions concerning the buyers' market. Its assumptions are, on the whole, so remote from reality that its application to the problems of life has often discredited those who attempted it. Markets for factors

are impure, and factors are neither mobile nor divisible with the ease required by the theory. To ascertain the marginal value product of a factor employed in modern large-scale enterprise is a task that would tax the resources of the most versatile accountant, and, indeed, there is evidence that such a task rarely if ever is attempted.[3] The operation of nonmonetary factors, lack of knowledge and mobility, the growth of collective action and of government regulation all contribute to restrict the field where the marginal productivity theory of distribution can supply a meaningful explanation of actual factor rewards.

The Distribution of Wealth. All income is derived either from work or from wealth. As working capacity is more widely diffused than the ownership of productive assets, the distribution of incomes from work would, at first glance, seem less concentrated than the distribution of incomes from wealth. This is indeed true, in spite of the fact that differential rates of return for work of the same type persist with great obstinacy in the face of theoretical postulates that call for their equalization.[4] Other factors that account for differences in income from work are based on the uneven incidence of native abilities, of talent, intelligence, opportunity, and of luck. Such incomes often vary with a person's bargaining strength, which in turn is conditioned by his withholding power, liquid reserves, and other wealth.

Income from wealth is more concentrated than income from work, and wealth itself is distributed more unevenly than income. Complete data of the national wealth of the United States and its distribution are not available, and it is more than doubtful whether such information can ever be assembled in the proper form. Fragmentary investigations confirm, however, that wealth is highly concentrated. In England, 1 per cent of the persons aged 25 and over presumably owned 50 per cent of total private property in 1946, a proportion that had gradually dropped from 70 per cent in 1911–13.[5] As will be seen later, events during the

[3] The discussion of these matters was much stimulated by a questionnaire study which pointed out the divergence of business behavior from that postulated by the theory. See R. L. Hall and C. J. Hitch, "Price Theory and Business Behavior," *Oxford Economic Papers*, No. 2 (1939), pp. 12–33. For comment, see communications by R. A. Lester, Fritz Machlup, and G. J. Stigler, "Marginalism and Labor Markets," *American Economic Review*, Vol. XXXVII, No. 1 (March, 1947), pp. 135–56, and references there cited.

[4] Factors will not remain in employments where they forego alternative opportunities offering higher rewards; i.e., their "opportunity costs" (returns that could be had in other employments) will tend to be equated with actual rewards. The theory of opportunity cost was first formulated by the American economist H. J. Davenport (1861–1931), *The Economics of Enterprise* (New York: Macmillan Co., 1913), pp. 59–61.

[5] H. Campion, *Public and Private Property in Great Britain* (Oxford: Oxford University Press, 1939), p. 109; Kathleen M. Langley, "The Distribution of Capital in Private Hands in 1936–38 and 1946–47," *Institute of Statistics Bulletin*, Vol. XIII, No. 2 (Oxford University: February, 1951), p. 47.

past decades have exerted powerful pressure toward greater equality of wealth distribution in England. For the United States, it was estimated in 1921 that the wealthiest 2 per cent of the population held 40 per cent of total assets. A later estimate, relating not to total wealth but only to holdings of marketable securities, indicates that, as of 1949, 3 per cent of all the spending units holding such securities owned 65 per cent of their total. A still more recent estimate of the share of the wealthiest 0.5 per cent of the population reveals that this top group held approximately 30 per cent of the total wealth in 1922, 32 per cent in 1929, 19 per cent in 1949, and 25 per cent in 1956, denoting a marked, though not intermissionless, decline in inequality.[6]

Who are the very wealthy? *Fortune* magazine published a survey in 1957, which lists the names of 76 Americans with fortunes estimated from $75 million to $1 billion. These are not the richest persons in the world: this honor is held by the oil sheiks of Arabia. But the wealthiest American and about one in three of the whole group are connected with the oil business or owe their fortune to it. The income tax favors this group because an oil producer may reduce his taxable income by a substantial depletion allowance. Of the 76 persons with fortunes of $75 million and up, one in two owes his wealth to inheritance, and this group again overlaps with the one connected with the oil business. Where great wealth is neither inherited nor based on oil, real estate and banking appear to be its principal sources.

TABLE 12

PERCENTAGE DISTRIBUTION OF SOURCES OF INCOME, BY INCOME BRACKETS, UNITED STATES, INDIVIDUAL INCOME TAX RETURNS, 1957*

INCOME ($1,000)	WAGES AND SALARIES	OTHER SOURCES OF INCOME		
		All	Dividends	Capital Gains
Under 10	88	12	2	.7
10–100	58	42	8	3
100–500	22	78	38	17
500–1,000	8	92	48	38
1,000 and over	2	98	64	27

* U.S. Treasury Department, Internal Revenue Service, *Statistics of Income: Individual Income Tax Returns or 1957* (Washington, D.C.: U.S. Government Printing Office, 1959), p. 22.

With wealth concentrated among the higher-income levels, income from wealth accuring during any given period represents a larger propor-

[6] W. I. King, "Wealth Distribution in the Continental United States at the Close of 1921," *Journal of the American Statistical Association*, Vol. XXII (June, 1927), pp. 135–53; J. Keith Butters, Lawrence E. Thompson, and Lynn L. Bollinger, *Effects of Taxation: Investments by Individuals* (Boston: Harvard Business School, Division of Research, 1953), p. 391; Robert J. Lampman, "Changes in the Share of Wealth Held by Top Wealth-Holders, 1922–1956," *Review of Economics and Statistics*, Vol. XLI, No. 4 (November, 1959), p. 386.

tion of higher incomes than of smaller ones. This tendency is illustrated in Table 12 where the percentage distributions of the sources of income are given for various income levels. Almost nine tenths of the incomes of the people at the bottom of the scale are from wages and salaries, and less than 3 per cent from dividends and capital gains. As income rises the proportion of wages and salaries gradually declines, and those of dividends and capital gains increase. Capital gains, it should be noted in passing, are considered income only for purposes of the tax collector but not for the purpose of computing the national income. It should also be noted that capital gains are underestimated in this tabulation because not all of them are subject to taxation.

The distribution of wealth which at a given moment prevails reflects the whole complex of a country's institutions and many years of past development. Especially important are the customs and laws with respect to inheritance. Where they favor one child, the oldest or the youngest, higher concentration of wealth will ensue. Traditionally the freedom of bequest is limited in many legislations by the *legitim* which must be paid to certain family members. But the leveling effect of this is not great, especially if it is considered in conjunction with such factors as size of family and differential birth rates. In advanced societies the number of children per family has gradually become smaller; and if birth rates continue to vary inversely with the socioeconomic status of the parents, the institution of inheritance as a factor making for concentration of wealth and income weighs doubly heavy.

As time goes by, a given concentration of wealth will become more pronounced and thus make for higher concentration of income, unless countervailing forces are set in motion through tax policies or through the diffusion of their fortunes by the heirs of the wealthy. With the bulk of the income from wealth accruing to the higher-income classes, a large proportion of it is saved and added to the capital, thereby producing still more income. In a similar way the concentration of incomes tends to promote further concentration of wealth. Inequality thus feeds on inequality.

THE DISTRIBUTION OF INCOME

Size of Distributive Shares. In the United States, income from work absorbs the largest, and a fairly stable proportion of total income. Table 13 indicates that the total compensation of employees is regularly in the neighborhood of two thirds of the total personal income. A slight upward drift of the percentage is noticeable. Of the incomes of proprietors, farm income is on the decline, reflecting the reduction of the absolute size of our agricultural establishment as well as unfavorable price developments. Independent business and professional people have gained from the rise in prices after the Great Depression, while rental income as well as dividends and

interest are less than they were in 1930. Transfer payments to veterans, pensions, and the like have grown to larger proportions than dividend or rental income.

TABLE 13

PERCENTAGE COMPOSITION OF PERSONAL INCOME BY DISTRIBUTIVE SHARES, 1930, 1935, 1940, 1945, 1950, 1955*

Year	Wage and Salary Receipts†	Proprietors' and Rental Income‡			Dividends	Personal Interest	Transfer Payments	Total
		Farm Income	Business and Professional	Rental Income				
1930	62	5	9	6	7	9	2	100
1935	61	8	8	4	5	10	4	100
1940	63	6	10	5	5	7	4	100
1945	69	7	11	3	3	4	3	100
1950	65	6	10	4	4	4	7	100
1955	69	4	10	3	4	5	5	100

* U.S. Department of Commerce, *National Income* (1951 Ed., Washington, D.C.: U.S. Government Printing Office, 1951), pp. 150 f.; *Survey of Current Business*, July, 1959, p. 11.

† Including other labor income.

‡ Of unincorporated enterprises, including inventory valuation adjustment.

Personal Income Distribution: International Comparisons. Comparisons of personal income distribution may be made for different years of a given country or for a number of countries. Such fragmentary data as are available indicate that over long periods (of fifty years and more) income tends to be more equally distributed. Among the various countries the greatest degree of equality prevails apparently in the advanced democracies of Australia and New Zealand. In prewar times, incomes were most concentrated in the semifeudal societies of Japan, Latin America, and southeastern Europe. Prewar England had a bit more concentration than the United States.[7]

Soviet Russia. Complete equality, while an ideal of utopian thinkers, has never existed in actual societies. Soviet Russia considers itself on the way from the transitional stage of socialism to that of communism, under which inequalities are to disappear. It is nevertheless surprising to what extent new inequalities have arisen there after the consolidation of the prerevolutionary classes. As regards income from wealth, there would presumably be little of it because no private citizen can own means of production or employ labor in a productive enterprise. Income from wealth may originate from saved income from work. Savings are officially encouraged and interest may be earned on them, but they were repeatedly expropriated after World War II. Until 1926 the value of legacies was restricted, but

[7] For data, see Colin Clark, *The Conditions of Economic Progress* (London: Macmillan & Co., Ltd., 1940), p. 425.

now money can be passed on to heirs along with other personal property. Thus, while all are supposed to be equal as far as wealth is concerned, some are more equal than others, and instances have become known of large estates—of 500,000 rubles—being passed on to heirs. Death taxes do not cut into these as they are no more than 10 per cent. Inequality is, however, much more pronounced with respect to income from work, in part as a result of the widespread use of incentive pay, under which labor works at piece rates and managers under a bonus system. The differential between the pay of the unskilled and the highly skilled workers is much greater in the Soviet Union than in the United States, where such differentials have declined. In the United States, a skilled worker earned about twice as much as an unskilled one at the turn of the present century, and only about one and one-half times as much at midcentury. In Soviet Russia, a skilled worker earns 2.8 times as much as an unskilled one in some employments, 3.5 times in others, and 4.5 times in still others.[8]

According to recent reports, a farm worker may earn about 400 rubles a month; a factory worker, 800; a manager of an enterprise with 700 employees, 1,500; one who manages a larger enterprise with 1,100 employees, 2,750; the manager of a very large enterprise with 30,000 employees, 4,000; the official in charge of Moscow city finances, 5,000; top artists and university department heads, 6,000 to 7,000; top scientists, 20,000; top politicians, 30,000.[9] As the income tax is very low, ranging, as it does, from 5 to 13 per cent, the differences in take-home pay reflect fairly well the differences

TABLE 14

DISTRIBUTION OF FAMILY PERSONAL INCOME AMONG EACH FIFTH AND TOP 5 PER CENT OF CONSUMER UNITS,* 1929–58†

Proportion of Consumer Units, Ranked by Size of Income	Family Personal Income, Per Cent						
	1929	1935–36	1941	1944	1950	1954	1958
Lowest fifth........	13	4.1	4.1	4.9	4.8	4.8	4.7
Second fifth........		9.2	9.5	10.9	10.9	11.1	11.1
Third fifth.........	14	14.1	15.5	16.2	16.1	16.4	16.3
Fourth fifth........	19	20.9	22.3	22.2	22.2	22.5	22.4
Highest fifth.......	54	51.7	48.8	45.8	46.1	45.2	45.5
Total.........	100	100.0	100.0	100.0	100.0	100.0	100.0
Top 5 Per Cent.....	30	26.5	24.0	20.7	21.4	20.3	20.2

* A consumer unit consists of a group of related persons who live together and pool their funds.

† *U.S. Income and Output.* A Supplement to the *Survey of Current Business* (Washington, D.C.: U.S. Government Printing Office, 1958), pp. 44, 161; *Survey of Current Business*, April, 1960, p. 14, and *passim*.

[8] Robert W. Campbell, *Soviet Economic Power* (Boston: Houghton Mifflin Co., 1960), p. 135.

[9] *Wall Street Journal*, August 13, 1959. The official exchange rate at that time was 4 rubles for $1, but in terms of purchasing power the ruble was worth substantially less, perhaps one tenth of $1.

in wages and salaries. The differences are further accentuated by the turnover tax, the principal source of public tax revenues, which is regressive to income. The inequality of money incomes from work is compensated in part by the availability of free services in education, health care, recreation, and the like. But, if the reconciliation of liberty and equality is considered the criterion of a wisely organized society, the Russian record is not impressive. There seems to be no more equality and much less liberty than elsewhere.

United States. The distribution of family personal income in the United States is shown in Table 14, where consumer units are ranked by family income and then divided into five groups of 20 per cent each, those with the lowest income, with the second lowest, and so forth (see also Fig. 30). The

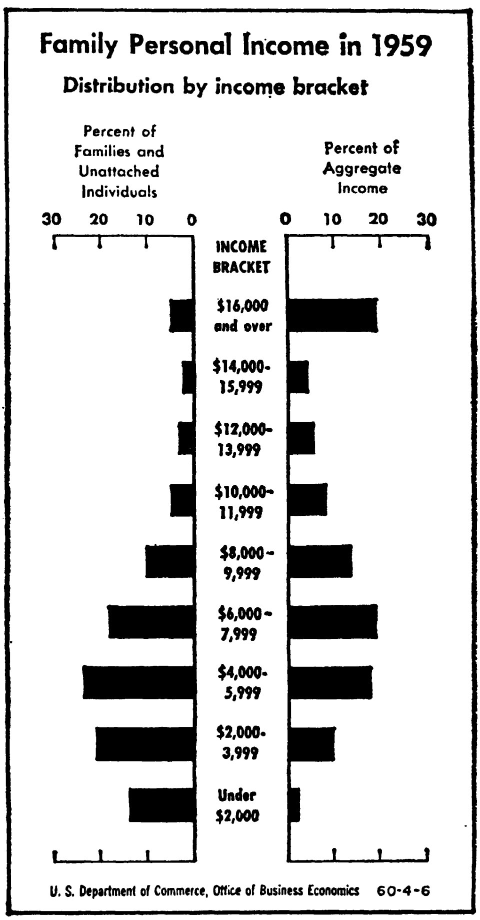

FIG. 30. To the left, there is shown the distribution of income receivers by income brackets; to the right, the distribution of income. Note that this is income before taxes; also that it does not include capital gains. From *Survey of Current Business*, April, 1960, p. 9.

table then indicates the per cent of income earned by each fifth of the consumer units as well as the share of income of the top 5 per cent of all consumer units. As can be seen, the share of the fifth of consumer units with the highest incomes is in the neighborhood of 50 per cent of total income. This share, 54 per cent in 1929, subsequently fell to 45.8 per cent in 1944. At this level it has remained during the more recent period, standing at 45.5 in 1958. Similarly, the share of the top 5 per cent of income receivers has fallen from 30 per cent in 1929 to about 20 per cent in 1944 and subsequent years. These developments show a marked decline in inequality of income, because the diminution of the share of the groups with the highest incomes meant that the shares of all other groups increased, as they did during the period under study.

The leveling-off process, which lasted until 1944, reflects the strong demand for labor during World War II, when employment rose rapidly and hours of work were lengthened. Another important factor was the increase in agricultural prices which did much to raise farm income in the lower brackets. Of similar significance was the incidence of rising wage rates, which was most distinctly felt by low-paid workers.

Expressed differently, the leveling-off process may be said to show that during the period under study the all-around increase in incomes was most pronounced for families in the lower- and middle-income groups. This is brought out in Table 15, where the percentage increase in average income is shown for each of the five fifths of consumer units and for the top 5 per cent.

TABLE 15

AVERAGE FAMILY PERSONAL INCOME OF EACH FIFTH AND TOP 5 PER CENT OF CONSUMER UNITS, 1935–36 AND 1957*

Proportion of Consumer Units, Ranked by Size of Income	Average Income in 1950 Dollars		Per Cent Increase
	1935 36	1957	
Lowest fifth	607	1,263	108
Second fifth	1,349	2,979	121
Third fifth	2,063	4,309	109
Fourth fifth	3,075	5,914	92
Highest fifth	7,591	12,054	59
Total	2,937	5,304	81
Top 5 Per Cent	15,582	21,453	38

* *Statistical Abstract of the United States, 1959* (Washington, D.C.: U.S. Government Printing Office, 1959), p. 316.

Table 16 shows the per cent distribution of spending units by brackets of money income in 1958. Note that money income in this connection refers to income received in the form of money, that is, exclusive of income in kind. As the table indicates, no less than 30 per cent of the spending units

—that is, related persons who live together and pool their funds—had money incomes of $6,000 and more in 1958, a highly favorable state of affairs.

TABLE 16

PER CENT DISTRIBUTION OF THE NATION'S SPENDING UNITS, BY MONEY INCOME CLASSES, 1958*

Money Income Class, Dollars	*Per Cent of Spending Units in Class*
Under 1,000	7
1,000–2,000	13
2,000–3,000	12
3,000–4 000	12
4,000–5,000	12
5,000 6,000	12
6,000–7,500	12
7,500–10,000	12
10,000 and over	8
All classes	100

* *Federal Reserve Bulletin*, July, 1959, p. 713.

The average family income was $6,220 in 1958 and $6,470 in 1959. How does this average income compare with one required to support a family reasonably well by American standards? Budgets that reflect such standard requirements have been set up by a number of authorities: the U. S. Department of Labor, the Community Council of Greater New York, and the Heller Committee for Research in Social Economics at the University of California. For the New York City, the first source gives an estimate of $5,970 as the minimum needed for a modest but adequate standard of living of a family of four in 1960. Figures for the West Coast cities are about 10 per cent higher, and for a number of cities in other regions of the country they are slightly lower (see Table 17). The budget for a family of two is 66 per cent of that of the four-person family. A three-person family gets along with about 87 per cent, and a five-person family would require about 120 per cent.

The Heller budget, which yields approximately the same totals, has an interesting breakdown into the various articles of consumption. This budget allocates 30 per cent to food, 12 per cent to housing, 10 per cent to income taxes, 9 per cent to transportation, 8 per cent each to clothing and upkeep, and to medical and dental care; about 4 per cent each to insurance, household operation, house furnishings, and recreation. From 1 to 2 per cent each is allowed for each of such items as personal care, tobacco, union dues, and gifts and contributions. Less than 1 per cent is left for reading and education.

The Problem of Poverty. An average, being indicative of the central tendency, beclouds the situation in which those find themselves whose income is below the average. Twenty per cent of all spending units had

TABLE 17

WORKERS' FAMILY BUDGETS FOR FOUR, TWENTY LARGE CITIES, 1960*

City and Suburbs	Total Budget	Food and Beverages	Rent, Heat, & Utilities	Other Goods & Services	Other Costs	Pers. Taxes
Atlanta	$5,642	$1,514	$1,151	$2,175	$258	$544
Baltimore	5,718	1,525	1,004	2,321	258	610
Boston	6,317	1,857	1,240	2,237	258	725
Chicago	6,567	1,751	1,386	2,470	258	702
Cincinnati	6,100	1,734	1,203	2,226	258	679
Cleveland	6,199	1,695	1,191	2,419	258	636
Detroit	6,072	1,761	1,040	2,400	258	613
Houston	5,370	1,486	941	2,195	258	490
Kansas City	5,964	1,631	1,117	2,342	258	616
Los Angeles	6,285	1,747	1,178	2,400	294	666
Minneapolis	6,181	1,647	1,150	2,368	258	758
New York	5,970	1,853	1,013	2,182	273	649
Philadelphia	5,898	1,825	954	2,191	258	670
Pittsburgh	6,199	1,889	1,012	2,363	258	677
Portland, Ore.	6,222	1,746	1,046	2,390	258	782
St. Louis	6,266	1,694	1,298	2,279	258	737
San Francisco	6,304	1,795	1,079	2,467	294	669
Scranton	5,693	1,758	871	2,205	258	601
Seattle	6,562	1,844	1,293	2,465	258	702
Washington	6,147	1,684	1,226	2,289	258	690

* U.S. Department of Labor, Release of August 26, 1960.

money incomes of less than $2,000 in 1958. This low-income group has certain characteristics which, if we know them, can be of help in indicating possible ways of improving the economic status of at least some of its members. In this connection, the following factors stand out among the elements responsible for a family's low income:[10]

1. Residence and Type of Employment. One out of every four low-income families lives on a farm. The money income of the farm people, low as it is in many cases, is, of course not an entirely satisfactory measure of their economic status, since the farm population tends to supplement its money income by consuming its own farm products.

2. Age. While persons 65 years of age or older constitute only 8.5 per cent of the total population, an estimated 25 per cent of the people with low incomes belong to this age group. The incidence of poverty rests especially heavily upon old people. Some of them are unable to continue productive

[10] Robert J. Lampman, "The Low Income Population and Economic Growth," Joint Economic Committee, 86th Cong., 1st sess., Study of Employment, Growth and Price Levels, *Study Paper* No. 12 (Washington, D.C.: U.S. Government Printing Office, 1959), pp. 6 ff. Information on minimum requirements for a reasonably decent standard of living may be found in "Minimum Earnings Necessary for Decent Standard of Living," AFL-CIO, *Collective Bargaining Report*, Vol. III, No. 6 (June, 1958), pp. 33 ff.

activities, but many of them are vigorous enough to work and could earn higher incomes if employers would not perfer young persons.

Still more important, in terms of numbers, than the aged are children within the low-income group. It is estimated that at least one out of each three people in this group is a child under 18, approximately 11 million all told, that is, about one fifth of all children. These children, without fault of their own, suffer from the disadvantages of poverty early in life, which may block their advanced education and careers.

3. Color. Nonwhite families constitute 10 per cent of all families but they are 22 per cent of all families with income under $2,000. This disproportion reflects the low economic status of the Negro.

4. Education. About two thirds of the heads of the low-income families have not advanced in their education beyond the grammar school. This observation illustrates the cumulative nature of some of the factors listed here: the income-earning capacity of many farm families and of many colored families is further depressed by inadequate education.

5. Disability. There are an estimated 1 to 2 million disabled persons who are in need of vocational rehabilitation. Virtually all of these persons are in the low-income group.

6. Lack of Skill. One out of every four employed heads of the low-income families were found to be in unskilled occupational groups. Again the disabilities of color and inadequacy of education are often combined with underdevelopment of skills.

Determinants of Income. Some of the factors listed above are of general importance in determining a person's income. Income tends to reflect a person's wealth, occupational status, place of residence, color, sex, and age.

The relationship between income and wealth has been noted before. As to occupational status the variations of earnings in different occupations reflect differences in the relative scarcity of skills and abilities and in the attractiveness of jobs, differences in bargaining strength, as well as people's imperfect mobility. If everybody were equipped with the same skill, ability, and bargaining strength, if all jobs were equally attractive, and if all persons were perfectly mobile, differences in rewards would tend to disappear. Actually the prevailing differences in income from work are substantial. An average farm laborer has a money income of less than $1,000 per year, whereas the average income of a self-employed professional worker exceeds $10,000. Wage rates show considerable differences. In construction, for example, common laborers were paid an hourly rate of $2.65 in April, 1960, while skilled laborers received $3.96. Farm wage rates were $1.03 per hour (without board and room). Common labor employed in road building was paid at the rate of $1.95 an hour. These rates again varied greatly with the locality in which the trade was practiced.

TABLE 18

DISTRIBUTION OF FAMILIES AND INDIVIDUALS BY MEDIAN MONEY INCOME, BY SPECIFIED CHARACTERISTICS, UNITED STATES, 1958*

	Median Money Income, in Dollars
All families	5,087
All individuals not in families	1,486
Occupational status: Families headed by:	
Farm laborers and foremen	2,188
Farmers	2,556
Laborers, except farm and mine	4,089
Clerical and kindred workers	5,692
Craftsmen and foremen	6,018
Sales workers	6,268
Self-employed proprietors (except farm)	5,995
Salaried professional workers	7,494
Salaried managers and officials	7,862
Self-employed professional workers	11,029
Place of residence:	
Farm families	2,747
Rural nonfarm families	5,048
Urban families	5,469
Color:	
White families	5,300
Nonwhite families	2,711
Sex:	
Male persons, 14 years and over†	3,700
Female persons, 14 years and over†	1,200
Age, families headed by persons of ages:	
14–24	3,783
25–34	5,207
35–44	5,704
45–54	5,738
55–64	5,153
65 and over	2,666

* Bureau of the Census, *Current Population Report*, Series P-60, No. 33, January 15, 1960.
† Persons with money income.

Table 18 shows the distribution of families by their median money income in 1958, by the occupational status of the family head, the place of residence, their color, and the age of the family head. Median money incomes are further shown for male and female persons. (Median incomes are calculated by ranging families or persons in accordance with their income and then taking the family or person in the middle of the group.)

People living in urban families earn more, on the average, than people on farms. The higher urban incomes, of course, do not necessarily imply a

higher status of welfare. There are differences in the cost of living which make a farm dollar go farther than an urban one. Also, farm families tend to receive income in kind which is not included in money income. The median money income of an urban family was $5,469 in 1958; that of a farm family, $2,747. Income tends to rise with the size of the urban community. The income of the average white family is nearly twice as high as the income of an average nonwhite family. Males have higher incomes than females. Income tends to increase with age, reaching, for the average of all income receivers, a peak at ages 45-54. Among different occupational categories, there are considerable differences in the age at which the income peak occurs. An unskilled laborer will reach peak income much earlier than a physician.

Professional Income. Income is rather closely related to education (see Fig. 31). This is not surprising, since the higher-paid occupations often require a more elaborate formal education. On the average, a college education is worth approximately $120,000, the life earnings of the college graduate being worth that much more than those of an average high school graduate. Life earnings of an elementary school graduate have been estimated at $140,000, those of high school graduate $200,000, and those of a man who completes four or more years of college at $320,000.[11]

A professional person, on the average, must undergo a period of training lasting seven years before he can find employment in his chosen field. During this period he not only fails to earn an income, but he must also incur considerable expenses for training and livelihood. In a way, there are a number of nonmonetary advantages of professional careers. Professional life has a certain amenity and prestige value; and it tends to last longer, by a few years, than the life expectancy of the general population. But there are also monetary advantages of a professional career. Among the various professions, the physicians rank first in average income, followed by the lawyers and dentists. The average net income of lawyers exceeds $12,000; that of physicians is close to $20,000. However, the average relationship beclouds the fact that a fairly successful lawyer has the chance to earn an income substantially larger than that of a fairly successful physician. The superior average earnings of physicians reflect such factors as the relatively high cost of a medical education, the long training, and the difficulty of entry into a medical school.

It goes without saying that within each profession there are substantial deviations from the average income. There are explanations on hand for some measure of deviation. For example, in the field of law it was found that the incomes of lawyers who had been enrolled in a full-time law school

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[11] Report of Paul G. Glick and Herman Miller, submitted to the American Sociological Society convening at Washington, D.C., September 2, 1955. The figures given there have been raised by 20 per cent to account for the increase in average income since 1955.

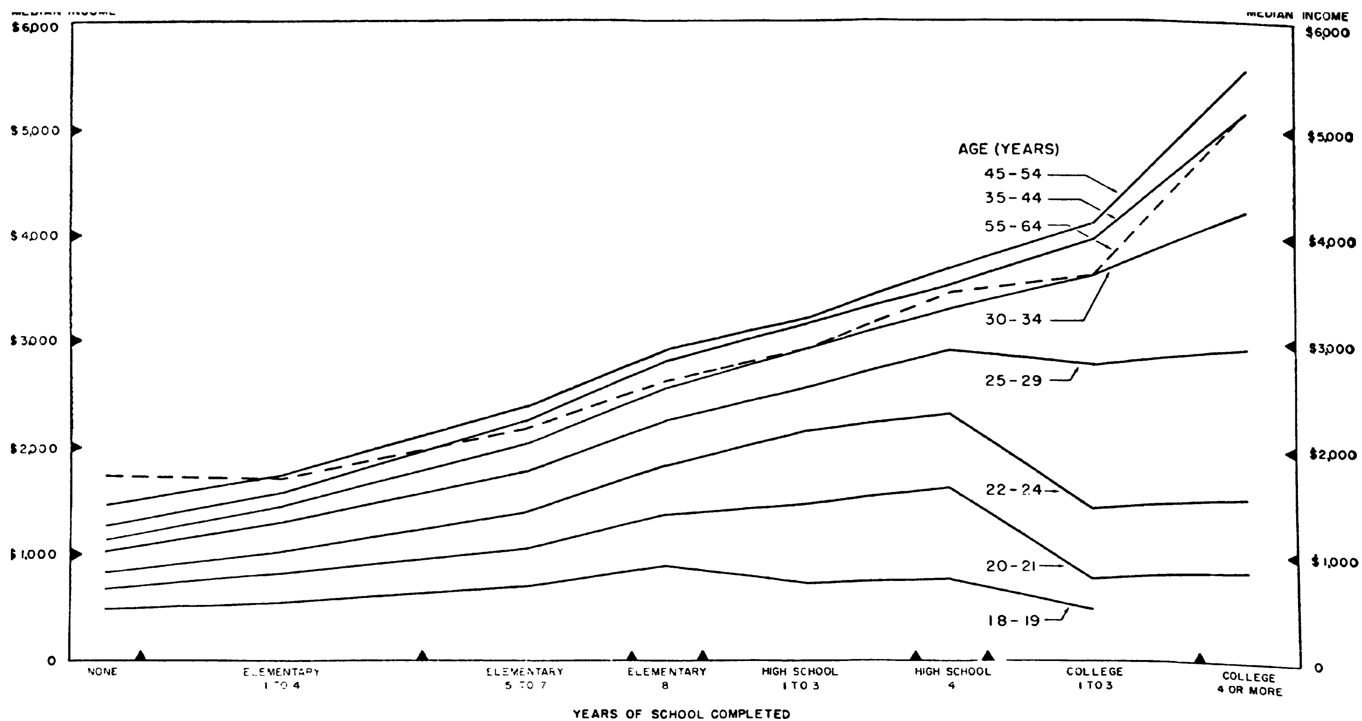


FIG. 31. This is less complicated than it looks. It shows the median income in 1949 of males 18 to 64 years old, with income, by years of school completed and age. If you wish to trace the relationship between income and education, look upward from the bottom line. The amount of income received tends to vary directly with the amount of education. The curves are drawn for different age groups. For persons who have completed no more than 1 to 4 years of elementary school, it makes little difference how old they are; their average income will not go beyond $2,000. On the whole, incomes of men in each educational level tend to increase with age up to 45 to 54 years and then to decline. For men of college age the relationship between income and education is less distinct, because many of these receive only small earnings from part-time employment while in school. For men past college age the financial advantages of a completed college education are pronounced. Source: Census Bureau, *U.S. Census of Population*, 1950, Vol. IV, Special Reports, Part 5, Chapter B, Education, 1953, p. 11.

and/or had graduated from college exceeded on the average by 50 per cent the incomes of lawyers not so trained. In the mass and on the average, there are also substantial differences in the incomes of lawyers who have graduated from different schools.[12] Studies of the incomes of a large sample of attorneys in New York City found the incomes of Yale and Cornell graduates 50 to 60 per cent in excess of the incomes of graduates of other schools.[13] In an earlier study the average life earnings of Harvard-graduated attorneys have been estimated as twice those of other attorneys.[14] Differentials such as these do not necessarily reflect only differences in the quality of the training received at the various schools; they may mirror the social connections of the graduate and the social and economic status of his family.

Further differences in the incomes of lawyers relate to the size of the law firm, measured in terms of the number of partners, the size of the community in which the lawyer practices, and his age. Special caution must be observed in the interpretation of these relationships. An attorney may not have a high income because he is associated with a large number of partners; but he may, instead, be associated with a large number of partners because he has a large practice with a high income.

It has frequently been estimated that the costs incurred on the occasion of professional training, high as they are, fall short, by a substantial margin, of the money value of a professional man's earnings over his anticipated useful life.[15] Hence, while the community at large pays more for professional service than the equivalent of the cost of professional training, professional training is a good "investment." If more of such investments were made, the supply of professional services would increase and bring about a fall in their price. Why, then, do no more young persons prepare themselves for a professional career? At first glance, it may seem that the decisive factor is the natural scarcity of talent suitable for professional work. However, a recent study of a sample of high-school graduates reveals that of 100 high-school graduates in the quartile of highest ability, only 45 entered college.[16] Only a fraction of all talented young people go to college; and of these, only a fraction will attend a professional school.

To some extent this situation reflects inequality of educational opportunities at the higher level. Our system of popular education provides free training on the primary and secondary level as well as scholarships for

[12] Milton Friedman and Simon Kuznets, *Income from Independent Professional Practice* (New York: National Bureau of Economic Research, 1945), p. 236; Seymour E. Harris, *The Market for College Graduates* (Cambridge: Harvard University Press, 1949), p. 37.

[13] Melvin M. Fagen, "Status of Jewish Lawyers in New York City," *Jewish Social Studies*, Vol. I, No. 1 (January, 1939), p. 97.

[14] J. R. Walsh, "Capital Concepts as Applied to Man," *Quarterly Journal of Economics*, Vol. XLIX (February, 1935), p. 267.

[15] Friedman and Kuznets, *op. cit.*, pp. 390–91.

[16] Seymour E. Harris, *op. cit.*, p. 132.

college and university training. But, in spite of this, the probability of a student from a family with a low income going to college is significantly less than that of equally able students from high-income families.[17]

Another factor which explains the relative attractiveness of professional earnings has already been alluded to. It is the institutional restriction on the freedom of entry into certain professions. These restrictions are especially pronounced in the field of medicine, in which professional incomes are the highest. Every year the number of college graduates seeking entry into a medical school exceeds the number of those who gain admittance. Restrictionism, while originally designed to lift the standards of medical education and practice, is responsible for the failure of the rate of physicians per population to increase with rising standards of real income and consumption.

Managerial Income. Income from work in excess of that earned by professional people accrues to a small number of artists as well as to the top management of large corporations. The total compensation of the chairman of the General Motors Corporation, the largest manufacturing concern in the country, was more than $670,000 in 1959, a substantial amount, but $100,000 less than a former chief executive of the firm had earned four years earlier. The chairman's compensation included $201,000 in salary, $352,000 in bonuses, and $117,000 in contingent credit available for stock options. Such options allow the officer to purchase shares of stock of the corporation at a stated price within a certain period of time. According to a tentative estimate, the chairman's pay, after taxes, would be $112,000. This shows how large an amount the income tax takes from high incomes from work.

Corporation executives with a compensation of several $100,000 belong to a small elite. The magazine *Business Week*, which prepares an annual survey of this matter, indicates that in 1958 there were 25 top executives receiving $300,000 or more. Officers of General Motors, General Electric, and of the major steel companies stand out in this group. The large bulk of corporate officers earn $100,000 and less.

Income from Wealth. Our federal income tax law is written in such a way that a person receiving income from wealth usually is in a better position to reduce the burden of the tax than a person who receives the same amount of income from work. This observation may be illustrated by the experience of our millionaires, a species that is by no means extinct. Indeed, as the *Wall Street Journal* of June 22, 1960, points out in commenting on a series of stories about new millionaires and how they have made their fortunes, "government figures indicate more individuals have become millionaires since World War II than in any comparable earlier period."

According to the Internal Revenue Service, 267 income tax payers

[17] Seymour E. Harris, *How Shall We Pay for Education?* (New York: Harper & Bros., 1948), p. 10.

reported incomes of $1 million or more in 1955. In 1950, their number had been only 219. The average income of this group as reported for income tax purposes was slightly in excess of $2 million before the income tax, and $1.1 million after the income tax. These figures do not include income from tax-free interest on municipal bonds, which are held, in the main, by persons of wealth, nor do they indicate the exact amount of long-term capital gains, which receive a privileged treatment under our income tax laws.

The bulk of the millionaires' income was earned in the form of capital gains and dividends, each reported with about $1 million by the average member of the group. As the capital gains include an unknown amount of long-term gains, of which only 50 per cent is reported, the actual capital gains were substantially larger than $1 million. Although 75 per cent of the millionaires had salary income, this constituted less than 2 per cent of their total income.

Measuring Income Distribution. If we wish to make comparisons of the distribution of income over time or among different groups of people, we frequently use judgments, such as "equality has improved" or "concentration is less in this group than in that one." Since it is unsatisfactory to characterize a given distribution in this fashion, quantitative devices for the measurement of concentration are called for. The most widely used of these devices is the so-called "Lorenz curve," an innovation introduced by the American statistician M. O. Lorenz in 1905.

This method of measuring inequality operates with the help of a system of co-ordinates whereby cumulated percentages of income receivers are measured along one axis and cumulated percentages of income along the other. If all earned the same amount of income, a given percentage of receivers would always earn the same percentage of income. The Lorenz curve, which indicates the distribution of incomes, would then be a straight diagonal line. In the face of prevailing inequality, the Lorenz curve will deviate from this line; and the greater the deviation the more pronounced the degree of concentration (see Fig. 32).

DISTRIBUTION POLICIES

Changes in income distribution may result as a consequence of public policies. If operating in one direction, they will make for greater concentration; and if operating in the other, for wider diffusion. In the following discussion, emphasis is placed on policies that reduce concentration; supplementation of the analysis should generally not be difficult. We will consider first public policies of taxing and spending; subsequently the promotion of competition; and finally wage policy.

Taxing and Spending. Income concentration may be diminished by means of disbursements from the public treasury. In the modern democratic state, expenditures of the government for social purposes increase nearly

LORENZ CURVES FOR THE DISTRIBUTION OF FAMILY PERSONAL INCOME, 1935–36 AND 1950

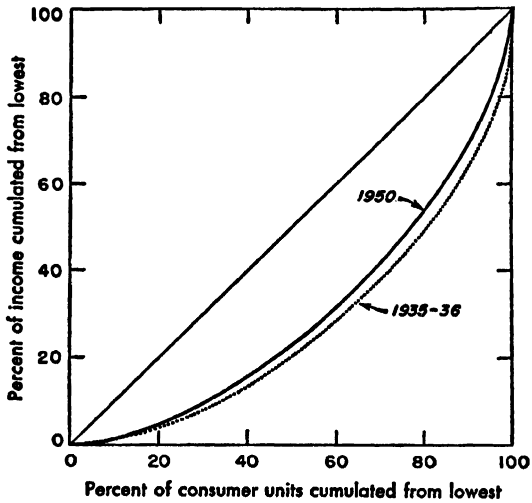


FIG. 32. This graph illustrates the Lorenz curve by showing one curve for the distribution of family personal income in 1935–36 and another for 1950. Notice the diminution of inequality during the intervening period. Source: Selma Goldsmith and Associates, "Size Distribution of Income Since the Mid-Thirties," *Review of Economics and Statistics*, February, 1954, p. 8. (Harvard University Press.) By permission.

all the time. The redistributive effects of such expenditures depend, of course, on the way in which they are financed. If the poorer part of the population defrays them, it receives, as a group, only the equivalent of its original contribution. It seems that such is the case when expenditures for social purposes are relatively novel; at that stage of the development, they are often the corollary of a highly regressive tax system. But as the tax system becomes more progressive and the range of social expenditures widens, a certain amount of income is redistributed; and as time goes on, it gradually increases. Such, at least, was the development in England, where social policies date back to an earlier period than in the United States. In 1913 the British working classes contributed more to government than the cost of social services. But in 1925, their contribution had fallen, in relative terms, to 85 per cent of these; and in 1935 the decline reached 79 per cent. In 1937 the amount of income redistributed via social services from the rich to the poor was estimated at 5 to 6 per cent of the British national income[18]

The progressive income tax is the principal element of the revenue system facilitating such a development. In the United States the federal income tax is steeply progressive. Average income tax liabilities for different income brackets are shown in Table 19. Although few of the taxes levied

[18] Tibor Barna, *Redistribution of Incomes Through Public Finance in 1937* (Oxford: Clarendon Press, 1945), p. 69.

TABLE 19

AVERAGE FEDERAL PERSONAL INCOME TAX LIABILITY IN RELATION TO FAMILY PERSONAL INCOME AT DIFFERENT INCOME LEVELS, 1958*

Proportion of Consumer Units, Ranked by Size of Income	Average Family Personal Income	Average Income Tax	
		Amount	Per Cent of Income
Lowest fifth	$ 1,459	$ 46	3.2
Second fifth	3,478	191	5.5
Third fifth	5,106	348	6.8
Fourth fifth	7,016	580	8.3
Highest fifth	14,254	1,901	13.3
Total	6,263	613	9.8
Top 5 Per Cent	25,276	4,694	18.6

* Income does not include capital gains, and income tax does not include tax on capital gains. *Survey of Current Business*, April, 1960, p. 14.

by the state and local governments are progressive, nevertheless the relative importance of the federal personal income tax in our tax system—federal, state, and local taxation combined—is so pronounced that our tax system is progressive relative to income, that is, the percentage it takes from income increases with increasing incomes. Our progressive income tax, while it stems further concentration, in itself does not promote increased equality. A tax policy aiming at this goal would be confronted by considerable difficulties. It would require substantial changes in income taxation and entail an upheaval in state and local taxation. As to the effects of our huge public expenditures on the distribution of income, no recent study of this complicated matter is on hand. Income concentration, and, more directly, wealth concentration are influenced by the taxation of estates and inheritances. These matters are discussed more fully in Chapter 18. Their consequences have been more far-reaching in England than in the United States, where a large initial exemption and "estate planning" limit the effects of the estate tax and where only a relatively small amount of the income of the wealthy feels the full effect of top-bracket income tax rates. In England, on the other hand, the number of people receiving incomes of £6,000 and over, after income tax, which was 7,000 in 1938–39, has declined to 45 in 1945–46, and while it has risen again to 900 in 1958, the development nevertheless marks the decimation of a class that for long had wielded great power in the community.

Promotion of Competition. Progressive income taxation reduces the realized profits of existing enterprises as well as the prospective gains which new firms hope to make. Hence, its effects on investment may be unfavorable. If the competitive character of the economy can be strengthened, this will tend to diminish income concentration without, perhaps, producing adverse effects on new investment. In this case the rate of profit earned

by monopolistic enterprises would fall, but the decline of monopoly power would manifest itself in the organization of new firms.

In a wider sense the equalization of educational opportunities will help in making the economy more competitive. If educational opportunities are available to the poor and the rich on an equal footing, greater diffusion of income will be promoted, because those who do not already possess income-producing wealth will in the position to strengthen their income-earning capacity.

Wage Policy. In the United States the secular, or long-term, trend of wages is upward; and that of working hours, downward. These tendencies reflect the operation of factors that have been studied before: the rise in the American worker's productivity and the growing strength of the labor movement. If output per man-hour increases on the average at a rate of 3 per cent per year, as it did, for example, in manufacturing and mining over the period from 1919 to 1939, output per man-hour would double in 23 years.

Hourly real earnings did indeed double during the first third of the present century, and they increased fivefold if a hundred-year period, say that from 1820 to 1920, is considered.[19] During shorter periods of time, real wages may, of course, lag behind productivity or productivity behind real wages. But over longer stretches of time the advance of the one will mirror itself in the progress of the other.

Since about a century ago, when normal weekly hours of work were close to 70, rising real-wage rates have been accompanied by falling hours of work (see Fig. 33). During the last decades of the nineteenth century, the American Federation of Labor assumed leadership in the movement for the eight-hour day. When the five-day week became popular during the twenties, weekly hours fell below fifty. Later on the forty-hour week became standard. In 1959 the AFL-CIO went on record proposing a 35-hour workweek of five seven-hour days.

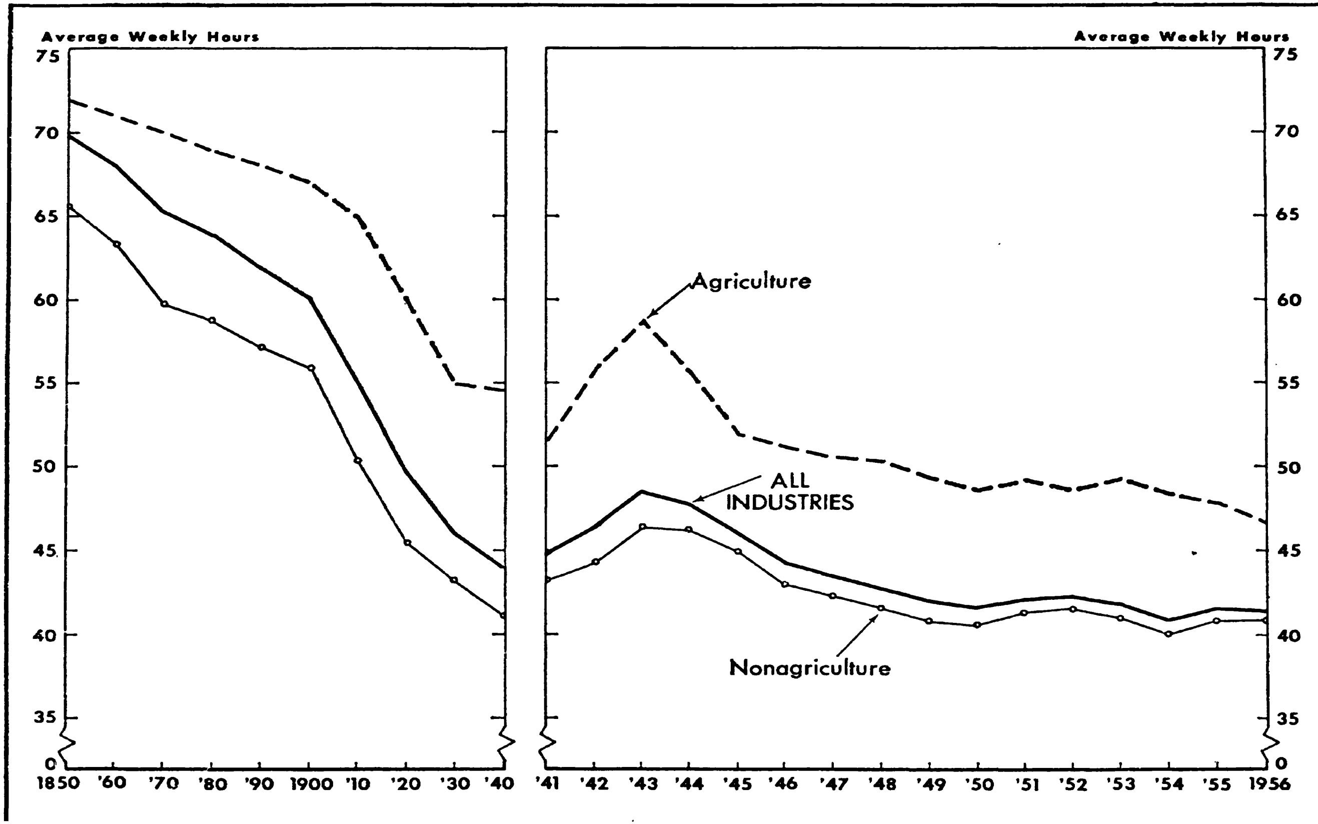
The secular fall in working hours and the increase in productivity are by no means unrelated phenomena. Unduly long hours depress output per hour; and when hours become excessively long, total output will fall. The increase in productivity over the last century was more continuous and gradual than the decline in hours. Hours of work tend to remain fixed over relatively long periods of time until standards of normalcy change.

During the past hundred years, real wage rates have risen at a rate considerably faster than that which characterized the decline in working hours. Working hours may have been nearly cut in half, while real-wage rates increased roughly five times. There was consequently a substantial rise in real annual earnings of labor, in the face of increased leisure.

The stability of the share absorbed by labor from the national income, which during the recent periods fluctuated around 66 per cent, seems to

[19] Harold G. Moulton, *Income and Economic Progress* (Washington, D.C.: Brookings Institution, 1935), pp. 180 ff.

Long-Term Trends in Average Weekly Hours of Work



indicate that the great improvement in the workers' standard of living did not significantly curtail the relative share of other groups. Thus, collective bargaining, the progress of social legislation, or any other forces that increased real earnings of labor apparently did no more than appropriate for labor the gains from productivity.

Social legislation has indeed been instrumental in placing a ceiling on hours and a floor under wages. State legislation, which in this matter preceded that of the federal government, was for many years unable to cope with constitutional difficulties. More about this will be found in Chapter 16. But where state legislation was allowed to prevail, enterprise soon found itself at a disadvantage when it competed with businesses located in states where similar legislation did not apply. Finally Congress passed a Public Contracts Act in 1936 and two years later the Fair Labor Standards Act. The former established on a contract basis labor standards for the guidance of firms doing business with the federal government. Hours are limited to forty; overtime pay is provided for work in excess of that period; and wages may not fall short of the prevailing minimum. The Fair Labor Standards Act covers certain types of employment in interstate commerce or the production of goods for interstate commerce. The forty-hour week is to be the standard working week; if longer hours are required, they must be paid for at a rate of time and one half of the ordinary.[20] The statute established a minimum hourly wage that was gradually to rise from 25 to 40 cents in 1945. This legislation was backed by persons especially interested in the welfare of unorganized workers. Instances were quoted of rewards as low as 2 or 3 cents, not in factories, but in lines of work where home industries had persisted. The Act thus was designed not only to protect workers but also those employers who were eager to maintain standard conditions of work. Agricultural labor, a type of work that does not lend itself to regulation of hours, was exempted from the Act, as were many other types of workers. The legislation was felt to be of especial significance for the South, where the terms of employment were distinctly inferior compared with the rest of the country. As time went on, rising wages and prices reduced the effectiveness of the statutory minimum wage, and it was raised to 75 cents in 1949. This again proved inadequate in view of the progress of inflation, and the minimum was increased to $1 in 1956.

SUMMARY

The modern discussion of income distribution centers largely around the problems created by inequality. While few people are attached to the

[20] The Fair Labor Standards Act was modified by the Portal-to-Portal Act of 1947. This Act establishes new criteria for the determination of compensable work-time preliminary or postliminary to the employee's principal activities. See United States Department of Labor, Wage and Hour Division, *General Statements as to the Effect of the Portal-to-Portal Act of 1947 on the Fair Labor Standards Act of 1938*, November, 1947.

ideal of complete equality, most would presumably support a certain leveling process. Functional and personal distribution must be distinguished. Functional distribution theory of the marginal productivity variety identifies the demand schedule for factors with their marginal revenue product schedule.

Wealth is more concentrated than income; and income from wealth, more than income from work. In the absence of countervailing tendencies, a given concentration of wealth will tend to become more pronounced as time goes by.

In the United States, income from work absorbs the largest, and a fairly stable, proportion of total income. Personal income has become more widely diffused during the 1940's.

Changes in income distribution may result as a consequence of public policies. Fiscal policies of taxation and spending, the competitive character of the economy, and wage policies are significant in this connection.

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STUDY QUESTIONS

1. How does the distribution of income affect the rate of saving?
2. What is the nature of the conflict between liberty and equality?
3. What is the difference between functional and personal distribution of income?
4. Does the marginal productivity theory of distribution provide a complete interpretation of factor prices?
5. Why is wealth more concentrated than income, and income more than consumption?
6. What do you know about the distribution of income in Soviet Russia?
7. With what personal characteristics does poverty tend to be correlated?
8. What is the relation between income and age?
9. What is the relation between income and education?
10. What is the Lorenz curve?
11. Since the 1930's, has the distribution of income in the United States become more concentrated or less so? What factors account for the development?
12. On what grounds would you oppose the leveling tendency of income distribution?
13. What policies support the leveling tendency of income distribution?
14. What has been the trend of hours of work over the past hundred years?
15. What are the principal provisions of the Fair Labor Standards Act?
16. What is the minimum wage at the present time?
17. What are the principal factors affecting the distribution of wealth?
18. Why are professional incomes high on the average?
19. Why are the average incomes of physicians higher than those of other professional groups?
20. Why is the average income of a graduate of the Harvard Law School higher than the average income of lawyers?

Chapter 12 — LIFE INSURANCE, SOCIAL SECURITY, AND INDUSTRIAL PENSIONS

RISK AND INSURANCE

The Nature of Risk. The incomes which accrue to most people in the ordinary business of life may generally suffice to meet common needs. But life is full of adverse chances, of events that happen as a result of unpredictable forces. The incidence of such chances is called "risk." In a few cases the adverse event is bound to take place eventually, with the uncertainty limited to its exact time. In other cases, it is not certain whether or not the event will occur at all. Risks cause losses, monetary and other kinds. Ordinary income often does not suffice to cover the monetary losses that arise from risks.

Moreover, some risks are so general in their character that society has made arrangements designed to redistribute the losses that follow from such risks. This is indeed the essence of insurance, which contains a guarantee of compensation for loss or damage by a specified contingent event—fire, death, shipwreck, sickness, and the like. All insurance is organized and financed on the basis of the so-called "law of large numbers." This law states that many phenomena, if they are studied in the mass, will occur in accordance with logical or statistical probabilities. A coin may fall head or tail, and nobody can predict how it will fall if tossed once. But if it is tossed very often, the percentage of heads will closely approximate that of tails.

In the case just discussed, it is a logical probability on which the stability of the mass phenomena is based. A similar stability prevails in cases where statistical probabilities can be calculated. If it has been observed that 12 out of 1,000 people die per year in North Dakota at

the age of 50, a very similar death rate can be expected to prevail in South Dakota.

The Principle of Insurance. As has been noted, insurance is designed to redistribute losses from risks. This is accomplished by the combination of a large group of people exposed to the same risks who reimburse those members who actually suffer losses. The amount of contribution, or premium, required from each member can be calculated on the basis of past mass observation. Insurance differs from gambling in that gambling creates risks. Insurance in itself does not eliminate risk but diffuses its incidence by distributing the loss over large numbers.

Some risks can be more easily insured and others less so, depending on the degree to which the contingency is foreseeable in the mass. If the insured pays enough, almost any risk will be insurable, but few will want to purchase such expensive insurance. Because of the nature of the risk involved, private insurance companies have shied from certain types of insurance. Unemployment, for example, is not an insurable risk, because it is not predictable and might assume catastrophic dimensions. Hence the unemployment compensation system is operated by the government. Insurance whose purchase is mandatory and which is sold by public agencies is called social insurance. It is designed to protect those who might otherwise not buy insurance against certain common risks.

In this chapter we will deal first with life insurance, the most widely bought type of private insurance, and then turn to social insurance and industrial pensions. Apart from life insurance, insurance companies sell a great number of different types of insurance—against fire, burglary, theft, hail, frost, rain, disability, financial liability, and many other contingencies.

LIFE INSURANCE

General Economic Significance. The economic significance of insurance does not rest exclusively upon its function of distributing losses. The purchase of insurance, especially of life insurance, has become so common that the reserves of the companies, and with them their financial power, have grown at a stupendous rate. The number of life insurance policies—14 million at the turn of the century—has increased to over 300 million; the amount of life insurance outstanding is now over $600 billion, twice as much as in 1953.

On the average, there are five life insurance policies per American family, totaling over $11,000 of insurance per insured family. Over-all figures such as these must, however, be interpreted with caution. While there were 267 million policies in force in 1958, with an average insurance of $1,800 per policy, more than one third—107 million—of these policies were of the "industrial" variety soon to be described. The industrial policies averaged a mere $400. Estimates for the year 1958 indicate that 6 of 7 fami-

lies owned some type of insurance. But 46 per cent of these families put less than $100 per year into life insurance premiums in 1956, the last year for which such data are available, and this amount ordinarily buys less than $3,000 of insurance.

The payments, or premiums, of the insured are collected into reserve funds from which benefit payments are made. The insurance company will want to find remunerative investments for the money in its fund. Total assets of the life insurance companies are now close to $120 billion, approximately as much as the (even faster growing) combined assets of the mutual savings banks and savings and loan associations, other important reservoirs of people's savings. The assets of the life insurance companies are the equivalent of about four fifths of the total value of all bonds listed at the New York Stock Exchange. Close to 50 per cent of the assets is held in the form of public utility, railroad, and industrial securities, mainly bonds. The second place, with over 35 per cent, is filled by real estate mortgages. Government securities, which were in the neighborhood of 50 per cent in the mid-forties, have been steadily reduced and now constitute only about 5 per cent of the assets.

The Metropolitan Life Insurance Company, the leading insurance concern, has become the country's, and probably also the world's, largest private corporate enterprise in 1954, when its assets rose above $12 billion and passed those of the American Telephone and Telegraph Company. Among some 50 giant corporations with assets of $1 billion or more, there are twelve life insurance companies. Three fourths of all policies are issued by the 25 largest insurance companies, half of them by the six giant concerns—Metropolitan, Prudential, Equitable, John Hancock, Travelers, and Aetna. However, as the business is profitable and expanding, quite a number of companies active in other fields of insurance have lately entered the life insurance business, and so have a number of newly established concerns.

The growth of prosperity and of the desire for security which the expansion of life insurance reflects have profoundly modified individual financial management. Periodically recurring payments of premiums reduce the amount of disposable income available for consumption and investment or saving. During the entire period from 1939 to 1960, individuals' additions to private insurance and pension reserves were in every year greater than the net additions to their holdings of corporate securities—although the latter have grown substantially, especially during the 1950's. However, whatever the relative importance of such holdings may be in the future, insurance companies have assumed to a significant degree the investment function of individuals. In fulfilling it, they have to be guided by standards of their own. They will have to avoid the more hazardous types of investments which a venturesome individual may well be willing to undertake. In the market for securities which are particularly suited for their port-

folios, insurance companies have attained such prominence that they have tended to push the investment banker into the background. The problems to which this development has given rise have been discussed on page 82.

It is easily understandable that many purchasers of life insurance desire not only protection against risk but also a safe investment for their savings. They often consider the regular routine of the premium payment as a factor conducive to saving. There are many varieties of life insurance. In some the investment element is stronger, in others that of protection. When only protection is bought the insurance policy has little or no loan value, and the insured does not receive any cash if he surrenders his policy before maturity. Offhand it may seem that an individual who does not aim at protection but merely desires to invest his savings could earn a higher rate of return if he were to use his funds directly for the purchase of government bonds and the like, without having them pass through an insurance company. The investment income of life insurance companies is somewhat above 4 per cent, not much more than about 2 per cent in excess of their expenses. While the yield which the companies can allow the policyholder is thus a relatively low one, various income tax advantages are connected with the accumulation of savings in the form of life insurance policy. These advantages are especially pronounced for taxpayers in high brackets; but the cumulation of tax economies over protracted periods of time, as is usually true in the case of life insurance, makes the matter one of importance also for income taxpayers in the medium brackets.

Consider, first, the situation of a taxpayer who is purchasing a retirement income policy, or annuity. If his income is high during his productive years of life, the additional income earned from investments in securities would be taxable at high bracket rates. If instead he has put his savings into an insurance policy, the return earned on the savings is not taxable until after his retirement, when presumably his income from other sources is reduced, placing him into a lower income tax bracket. Second, in the case where the proceeds of life insurance policies are paid to beneficiaries upon the death of the insured person, no tax liability on the returns from the deceased person's savings arises at all. Factors such as these go a long way in explaining why the net return on savings after taxes often is likely to be in favor of insurance investment.

Types of Companies. Most life insurance is held by so-called "mutual" companies. They are owned by the policyholders and sell what is referred to as participating insurance. To the extent to which the gross premium exceeds costs, it is returned to the policyholder in the form of dividends. Four of the six largest concerns are mutual companies.

In the so-called "stock" companies owners and policyholders are different persons. There the premium is less than in the case of the participating companies but the policyholders do not receive dividends. Which

type of company can provide insurance at lower cost will depend upon the relative operating efficiency.

Ordinary, Industrial, and Group Insurance. Life insurance is of the ordinary, industrial, or group variety. Ordinary life insurance is issued in units of $1,000 or more, since 1956 often with a discount on the premium if a large amount of insurance is taken out. It is available in the form of numerous plans that will meet the individual requirements of the purchaser. Almost two thirds of the total amount of life insurance is represented by ordinary insurance but only one third of the number of policies. Industrial insurance has a large number of policies but only one seventh of the total amount of insurance. This type of insurance is sold in small units of usually less than $500, with premiums payable by the week or by the month. These features, together with higher mortality, account for the higher cost of such insurance. The expense of collection can be reduced when insurance is purchased for groups of people. Group life insurance is often provided by industrial enterprises for their employees. The average insurance is $4,000. Over 40 million group insurance policies are in existence at the present time.

Whole Life, Limited Payment Life, Endowment, Retirement Income, and Term Insurance. While industrial and group insurance is highly standardized, there are numerous varieties of ordinary life insurance policies. They include:

1. Whole Life, or Straight Life Insurance. This insurance grants protection during the whole life, maturing, as it does, at the death of the insured person. The cost of this type of insurance is moderate, and it is suitable when protection is desired for an indefinite period of time. If the insured wants to terminate the contract during his lifetime, he can surrender it for cash or change to other types of insurance.

Not so long ago, whole life was the most widely sold type of life insurance. Its principal drawback is the fact that it matures only at death. If the insured person happens to grow old, the need of his family for protection generally diminishes and so does his ability to pay premiums. Nevertheless the whole life policy grants the maximum amount of insurance protection for a given annual premium outlay; it also provides a substantial cash value, which the policyholder can utilize before maturity in the form of a guaranteed retirement income.

2. Limited Payment Life Insurance. In the case of limited payment life insurance, premium payments cease at a specified date, determined either by the number of premiums that must be paid or by the attainment of a given age on the part of the insured. This type of insurance, though it has a high cash surrender value, requires the payment of premiums higher than those for whole life insurance. It is suitable for persons whose earnings, though substantial for the time being, may not endure on the same level.

3. *Endowment.* Both under whole and limited payment life insurance, the policy does not mature until the death of the insured. An endowment policy provides for payment at a specified maturity date; or, if death should occur earlier, at the time of death. Premiums are payable on a limited payment plan, or up to the time of maturity. Endowment policies thus provide protection in the case of death or a capital sum payable at a certain age of the insured, but they do so at still higher premiums than for comparable limited payment policyholders.

4. *Retirement Income Insurance, or Annuity.* A life annuity is a periodical payment which continues during the life of the insured. An annuity may be immediate or deferred. An immediate annuity is payable 3 to 12 months after the purchase; it is useful for elderly people who desire retirement. Deferred annuities become payable after the lapse of a certain number of years. They may be purchased on a single premium plan or under an arrangement providing for premium payments during the period of deferment. There are various types of deferred annuities. The most popular varieties provide for cash payment if the insured dies during the deferment period.

5. *Term Insurance.* All contracts discussed heretofore contain elements of protection as well as of investment. The type of life insurance that exclusively grants protection is called "term" insurance. It is bought for a certain number of years and payable if the insured dies within this period. The insurance has no or only nominal cash surrender value, and its cost is low. Most term insurance policies facilitate renewal or conversion into other types by the absence of any requirement that the term policyholder be an insurable risk at the time of renewal or conversion. Term insurance is attractive for young people who desire maximum protection at lowest cost for their family in the case of premature death.

Special Types of Life Insurance. Sometimes insurance policies are joint in the sense that they are payable at the first death of two or more insured persons—partners, husband and wife, etc. Joint and survivor annuities are payable until the death of the last survivor among the insured persons. A great variety of other combinations is possible. In some cases the cost of insurance can be reduced by purchases of special policies available only in large amounts or written for groups that enjoy an abnormally low mortality.

Variable Annuities. The various types of life insurance policies that are commonly sold do not constitute a hedge against inflation. Both premium payments and the amount of insurance are expressed in terms of current dollars. If prices rise, as they have done over a long period of the immediate past, $1 of the insurance benefit is worth less in terms of purchasing power than $1 of insurance premiums that were paid when prices were lower and $1 bought more goods.

In this situation the Prudential Insurance Company, the country's

second largest insurance concern, has pioneered in the sale of so-called "variable annuities." Unlike the conventional types of life insurance, variable annuities do not promise an amount of benefits determined in advance but one that will vary in accordance with stock prices and dividends. Premiums for variable annuities are paid into reserve funds that are invested in common stocks rather than in bonds and mortages, the expectation being that the future behavior of stock prices will parallel that of consumer prices. If stock prices rise, so will the variable annuities. Obviously, a fall in stock prices will reduce the amount payable under variable annuities. To provide some measure of protection against this contingency, some authorities recommend that variable annuities be used to supplement, rather than to replace, the purchase of conventional life insurance.

Premium Plans. Insurance may be bought on the level premium plan or on the increasing premium plan. As the risk of death becomes more imminent with increasing age, it would at first glance seem natural that premium payments for an insurance purchased at a given age of the insured would increase as time goes on. Insurance can indeed be bought on this basis, called increasing premium plan. It is possible, however, to calculate a uniform, or level, annual premium which will not change over the years. The mathematics of insurance, or actuarial science, supplies the technique for such calculations.

Premiums are determined in the light of the probable death rates of people at different ages, interest rates, and operating expenses of the companies. If premiums are level, they must be large enough to permit the accumulation of a special reserve. In another sense, reserves are required because of the investment character of many types of life insurance.

The probable death rates can be found in mortality tables. There is a great variety of these, but the one most widely used is based on experience in 1950–54 and was computed under the sponsorship of the National Association of Insurance Commissioners. It is generally referred to as "Commissioners 1958 Standard Ordinary" mortality table. Table 20, which is reproduced here, indicates the numbers of life years that can be expected at different ages.

The rate of interest, the second important element in the calculation of premiums, has considerably declined through the years from the Great Depression to the mid-forties. As a result, companies' returns on their investments fell off, and a recalculation of premiums became necessary. However, since 1948, returns have been steadily increasing and are now over 4 per cent.

Cost of Insurance. As is natural the costs incurred in conjunction with various types of life insurance vary greatly. There are certain underlying factors, however, that are important in the determination of all of them. To the gross premium, there must be added charges for a waiver of premium in the case of total and permanent disability of the insured. This

TABLE 20

COMMISSIONERS 1958 STANDARD ORDINARY MORTALITY TABLE*

Age	Life Expectancy, Years	Age	Life Expectancy, Years	Age	Life Expectancy, Years	Age	Life Expectancy, Years	Age	Life Expectancy, Years
1	67.78	21	49.46	41	31.29	61	15.44	81	5.51
2	66.90	22	48.55	42	30.41	62	14.78	82	5.19
3	66.00	23	47.64	43	29.54	63	14.14	83	4.89
4	65.10	24	46.73	44	28.67	64	13.51	84	4.60
5	64.19	25	45.82	45	27.81	65	12.90	85	4.32
6	63.27	26	44.90	46	26.95	66	12.31	86	4.06
7	62.35	27	43.99	47	26.11	67	11.73	87	3.80
8	61.43	28	43.08	48	25.27	68	11.17	88	3.55
9	60.51	29	42.16	49	24.45	69	10.64	89	3.31
10	59.58	30	41.25	50	23.63	70	10.12	90	3.06
11	58.65	31	40.34	51	22.82	71	9.15	91	2.82
12	57.72	32	39.43	52	22.03	72	9.63	92	2.58
13	56.80	33	38.51	53	21.25	73	8.69	93	2.33
14	55.87	34	37.60	54	20.47	74	8.24	94	2.07
15	54.95	35	36.69	55	19.71	75	7.81	95	1.80
16	54.03	36	35.78	56	18.97	76	7.39	96	1.51
17	53.11	37	34.88	57	18.23	77	6.98	97	1.18
18	52.19	38	33.97	58	17.51	78	6.59	98	.83
19	51.28	39	33.07	59	16.81	79	6.21	99	.50
20	50.37	40	32.18	60	16.12	80	5.85		

* Institute of Life Insurance, *Life Insurance: 1959 Fact Book*, New York.

charge is small, reflecting the remoteness of the contingency. It is higher for women than for men. In the case of an insurance taken out with a mutual company, there may then be deducted the dividend. This will tend to increase with the lapse of time; but as its amount depends upon the future experience of the company, there is no absolute certainty attached to this element. The result of all these operations is the net cost per year.

In Table 21 these figures are quoted for a great variety of types of life insurance, always per thousand dollars of insurance. They are taken from the 1960 rate book and dividend manual of a typical mutual company. All amounts are calculated for policies taken out at the age of 22; the dividend is that for the first year. The last column of the table indicates the cash surrender values.

A comparison of the premiums brings out that limited payment life insurance requires higher premiums than a straight, or whole life policy. This must be so because the number of premium payments is limited. The smaller the number of payments, the larger the payments themselves. An endowment insurance, since it might become payable before death, is more expensive than whole or limited life insurance. Again the premium increases with the shorter period of payment. In the case of retirement income the

TABLE 21

TYPICAL ANNUAL PREMIUM PAYMENTS FOR DIFFERENT TYPES OF LIFE INSURANCE, PER $1,000 AT AGE OF 22 (MEN)*

Type of Insurance	Gross Premium	Waiver of Premium	Total Premium	1st Year Dividend	1st Year Net Payment	Cash Surrender Value after Ten Years
Straight life	$18.50	$.37	$18.87	$2.63	$16.24	$105.00
Limited Payment Life:						
To age 65	21.20	.35	21.55	3.28	18.27	118.00
To age 60	22.26	.32	22.58	3.38	25.96	128.00
25 payments	27.72	.26	27.98	3.96	24.02	177.00
20 payments	32.15	.26	32.41	4.37	28.04	215.00
15 payments	39.65	.27	39.92	5.31	34.61	286.00
10 payments	55.42	.29	55.71	7.37	48.34	431.00
Endowment:						
At age of 65	23.80	.38	24.18	2.82	21.36	143.00
At age of 60	26.53	.35	26.88	2.69	24.19	169.00
20-year	51.40	.33	51.73	2.53	49.20	418.00
15-year	68.91	.35	69.26	2.59	66.67	609.00
10-year	105.96	.41	106.37	3.28	103.09	1,000.00
Retirement income:						
At 70	26.17	.43	26.60	2.63	29.23	166.00
At 65	31.91	.46	32.37	2.33	34.70	224.00
At 60	40.42	.46	40.88	2.13	43.01	312.00
Convertible term insurance:						
1 year	5.82	—	5.82	1.92	3.90	—
10 years	7.66	.27	7.93	1.18	6.75	.66†
15 years	8.08	.28	8.36	1.10	7.26	4.29†
20 years	8.20	.30	8.50	1.02	7.48	9.76†

* Courtesy Institute of Life Insurance.

† Reserve is credited toward premium of converted policy.

insured can, at the maturity of the policy, obtain either the insured amount in cash or its equivalent in the form of annuities. This type of insurance requires still higher premiums, because a very large capital must be accumulated to provide a lifetime annuity of reasonable amount.

Term insurance requires by far the lowest premiums. It has been the prototype of all other forms of life insurance and provides only protection—just as insurance against fire, theft, rain, etc.—with no investment elements attached.

The premiums quoted in the table are for policies to a total of $10,000. For policies from $10,000 to $25,000 they are decreased by $1.50, and for policies over $25,000 by $2.00. The premiums quoted are for men. They are somewhat lower for women because of their higher life expectancy.

Usually this works out in such a way that the premiums for a woman are the same as those for a man three years younger, that is, the premiums quoted in the table for men aged 22 would apply to women aged 25. This is true for straight life, some limited payment life, and some endowment policies. On all other policies the rates are generally lower for women except for retirement income policies, which are slightly higher—again because of the higher life expectancy of women.

Cash Surrender Values. All life insurance, except term policies for short periods, has a cash surrender value which can be realized on the surrender of the policy. This value never comes up to the equivalent of accumulated premium payments plus interest. It falls short of this amount, because the insured enjoyed protection during the period that preceded the surrender of the policy. The existence of cash surrender values testifies to the investment element attached to a given type of life insurance. Cash surrender value will vary directly with this factor and inversely with the element of protection. If, as in the case of a term policy, protection becomes the exclusive function of the insurance, it has none or only nominal surrender value.

Public Regulation of Private Insurance. Since so large a part of the public's savings is entrusted to insurance companies, society has a distinct interest in the observation of proper standards of financial policy on the part of these concerns. The regulation of the insurance business has come to be regarded as a matter under state jurisdiction. For a long time the Supreme Court considered this business as intrastate or local in character and thus made federal regulation unlawful. But in 1944 the Supreme Court reversed itself in a famous decision and applied the antitrust laws to a group of insurance companies.[1] While this would have opened the way to federal regulation, Congress passed the McCarran-Ferguson Act of 1945, stating its intention to leave the regulation and taxation of the insurance business with the states and making the federal antitrust laws applicable to the interstate insurance business only to the extent that it is not regulated by state laws.

As the business of most insurance companies is nation-wide, they are subject not only to the regulation of the state in whose territory they are located but in all states in which they want to sell insurance. Moreover, insurance companies' financial practices, because of the volume of their investments, affect the level of national income and employment. State legislation, while it has facilitated experimentation and trial, has on occasion been ill-advised. In some states, it is poorly executed; and in others, unduly lax. To relieve the burden imposed on insurance companies by a multiplicity of diverse state regulations by which they must abide, the professional

[1] *United States* v. *South-Eastern Underwriters Association*, 322 U.S. 533 (1944).

organization of the various state insurance commissioners has been instrumental in drafting standardized legislation. This has of late been passed by many states.

The substantive provisions contained in state laws center primarily around the delineation of securities and other investments eligible for purchase by the insurance companies. About this, more will be said in Chapter 14. Regrettably, the policing of the insurance business by the state agencies leaves much to be desired. They failed, for example, to act against cases of false and misleading advertising by accident and health insurance companies. The Federal Trade Commission attempted to fill this gap and issued between 1954 and 1958 more than 40 complaints and over a dozen cease-and-desist orders in this field. However, when some of these cases reached the Supreme Court, the agency was denied jurisdiction over a field that Congress in 1945 had assigned to the states.[2] Although the Federal Trade Commission lost out, its action nevertheless had the wholesome effect of stimulating greater vigilance on the part of the state insurance commissioners, whose organization drafted a code of ethics demanding truthful advertising on the part of the insurance companies.

The exemption of the insurance business from the antitrust laws is not an absolute one, however. As the state authorities have failed to uphold competition in this field by encouraging or tolerating regional and local fixing of premium rates by so-called "bureaus," some excesses of these organizations have come under the scrutiny of a congressional committee.[3] Moreover, while the Supreme Court has refused to apply the federal antitrust laws in a case involving an alleged conspiracy of several insurance companies against an independent insurance broker, it has upheld the government in another case involving the group boycott, by a local "insurance exchange," of insurance companies not transacting their business through members of the exchange.[4] Under the McCarran-Ferguson Act, such group boycotts remain subject to the federal antitrust laws.[5]

[2] *Federal Trade Commission* v. *National Casualty Company*, 357 U.S. 560 (1958).

[3] *Hearings* before the Senate Monopoly and Antitrust Subcommittee, May 29, 1959. Four years earlier this subcommittee proclaimed that it "will not forever accept 'attempts' at regulation as a substitute for regulation of the business of insurance by the states. The patience of the federal government with those who would abuse the good name of insurance may someday come to an end." Cited by Robert L. Mehr, "The Erosion of Annuity Values," *Current Economic Comment*, February, 1957, p. 11.

[4] *United States* v. *New Orleans Insurance Exchange*, 355 U.S. 22 (1957).

[5] See also Statement by Robert A. Bicks, Acting Assistant Attorney General in Charge of the Antitrust Division, before the Antitrust and Monopoly Subcommittee of the Committee on the Judiciary, United States Senate, May 12, 1959, which treats of the general inadequacy of state regulation, as does "The Insurance Industry," *Report* of the Antitrust and Monopoly Subcommittee of the Senate Committee on the Judiciary, 86th Cong., 2nd sess. (Washington, D.C.: U.S. Government Printing Office, 1960).

NATIONAL SERVICE LIFE INSURANCE

For the benefit of veterans of World War II, the U.S. government created a life insurance organization of its own. Insurance under this arrangement was more attractive than the purchase of private policies, because premiums for comparable benefits were cheaper. They do not include an allowance for administrative expenses, are calculated regardless of the special incidence of war-conditioned increase in mortality, and do not require payment for the waiver in the case of total and permanent disability. The expenses incurred by the system on account of these features are covered by grants from the federal Treasury.

For veterans of World War II, the right to take out National Service Life Insurance has now expired. A new type of insurance is available for service personnel currently on active duty. These now receive $10,000 worth of term insurance free of premiums and can convert this to other types of insurance within 120 days after leaving service. The periodical collection of premiums on the old type of insurance was so costly, and dividend payments have been so substantial, that the new system, it is believed, will be relatively cheaper for the government.

SOCIAL SECURITY

The purchase of life insurance is not mandatory, and there are many persons who fail to make provision for the typical financial risks of life. Most of them do so because they cannot afford the required expenses. Moreover, for certain types of risks, private insurance is either not obtainable at all or only at prohibitive cost. For these reasons, federal and state legislatures have adopted a far-reaching program of social security designed to cope with these risks. Parts of the program provide mandatory public insurance—in the words of Roy Harrod, the British economist, "the most important and successful social invention of the twentieth century"; others grant benefits on the basis of need.

The typical risks about whose incidence public agencies are concerned are unemployment, indigency of aged persons, widows, orphans, disability, and sickness. The unemployment compensation program has been discussed in Chapter 9. Unemployment compensation; old age and survivors insurance; old age assistance; aid to dependent children, to the needy blind, and to permanently and totally disabled persons are matters dealt with in the Social Security Act of 1935. Compensation for industrial accidents is regulated by state legislation. Federal programs for health insurance are under active discussion, but so far only a limited program of assistance for aged people who are in poor health is available.

Old Age, Survivors, and Disability Insurance. The increasing life expectancy of the American people and the growing proportion of the

aged in our midst have been important factors in impressing the Congress with the need for a program of financial security for older persons. Old age, survivors, and disability insurance, as provided under the Social Security Act of 1935 and its amendments, is mandatory and national in scope and administration. The system also is contributory, and benefits are related to the wages received by the insured person. Its coverage has gradually been extended to include more and more groups of persons in dependent employment as well as self-employed people. More than 90 of every 100 wage earners and self-employed persons are now covered by the system. The physicians in independent practice who are reluctant to join the system—they claim that they never retire—are still outside of it. For persons in a few other employments the coverage is optional rather than mandatory.

TABLE 22

ILLUSTRATIVE MONTHLY BENEFITS UNDER OLD AGE AND SURVIVORS INSURANCE, IN DOLLARS*

Average monthly earnings†	$50 or less	$ 75	$100	$150	$200	$250	$300	$350	$400
Retirement at 65 / Disability	$ 33	$ 45	$ 59	$ 73	$ 84	$ 95	$105	$116	$127
Retired woman worker starting at:									
62‡	26	36	47	58	67	76	84	92	101
63	28	39	51	63	72	82	91	100	110
64	30	42	55	68	78	88	98	108	118
Retired couple—wife starting at:									
62‡	45	61	81	100	115	130	144	159	174
63	46	63	83	103	119	134	148	164	180
64	48	65	86	106	122	138	153	169	185
65	49	67	88	109	126	142	157	174	190
Widow, surviving child, or dependent parent	33	33	44	54	63	71	78	87	95
Widow and 1 child *or* 2 dependent parents	49	67	88	109	126	142	157	174	190
Widow and 2 children	53	67	88	120	161	190	210	232	254
Usual maximum family payment	53	67	88	120	161	202	240	254	254
Single lump-sum death payment	99	135	177	219	252	255	255	255	255

Social Security Administration.

* For this table all amounts are rounded down to the next lower whole dollar figure.

† In figuring the average, certain amounts of low earnings may be omitted, as may be periods of disability.

‡ Retirement payments to women are permanently reduced if started before age 65.

Benefit payments are made to insured persons who become disabled, regardless of their age, otherwise to insured persons at age 65—optionally to women at age 62—and to their family members. Table 22 shows the amounts payable to various types of beneficiaries per month.

The minimum amount payable is $26; the maximum, $254. Benefits are based on the average earnings of the insured up to $4,800 per year. They will be paid if the insured has been in covered employment during specified periods of time. These are expressed in quarters and vary with the time of retirement and other factors. A retired person will lose part of his benefit if he continues to earn more than certain stipulated amounts of income from work.

The benefits payable to the family members stand in a certain proportion to the insured person's retirement benefit. Children of the insured will after his death receive benefits up to the age of 18, and his widow will receive them regardless of her age if she cares for a child entitled to the benefit. Otherwise the widow is eligible for benefits at age 62. Aged parents of a deceased insured person may receive benefits if they were supported by him. A lump-sum death benefit, amounting to three times the monthly benefit of the insured, but not more than $255, will be paid upon his death to defray burial expenses.

TABLE 23

OLD AGE AND SURVIVORS INSURANCE TAX RATES, PERCENTAGE OF EARNINGS UP TO $4,800 A YEAR*

Years	Employee	Employer	Self-employed
1960–62	3 %	3 %	4½%
1963–65	3½	3½	5¼
1966–68	4	4	6
1969 and after	4½	4½	6¾

* Social Security Act as amended.

As Table 22 indicates, the benefit payments have by now become quite substantial, and they will be considerable help not only when the insured person retires but also when he dies prematurely, leaving the family without a breadwinner. Old age and survivors insurance benefits alone do not suffice for all needs, and they call for supplementation by private insurance and retirement plans. In 1950, and again in 1954, 1956, 1958, and 1960 the Congress has liberalized the old age and survivors insurance system, which enjoys the widespread endorsement of the American people, and further liberalization may be expected in the election years to come. The amount of benefit payments has been raised step by step during the inflationary period of the 1950's, making the system more inflation-proof than private life insurance can afford to be—unless a variable annuity has been taken out. Thanks to the watchfulness of the Congress, the attempts of misguided

pressure groups to undermine the system have invariably failed. Liberalizing amendments usually are passed unanimously or nearly so.

Old age and survivors insurance is contributory; that is, it is financed by contributions or taxes levied on the payrolls of covered employees. These taxes are matched by payments of the employers. In the case of self-employed persons, it is, of course, only they who pay a tax—in this case a higher one. The rates prevailing now and scheduled in the future are shown in Table 23. No taxes are levied on earnings over $4,800 a year.

The increase in rates which is scheduled for future years is only a tentative one and may be changed in the face of new circumstances. Such increases are considered necessary, because as the time goes on more and more persons in covered employments will become eligible for benefits. From the inception of the system until the fiscal year of 1957, annual tax payments exceeded annual benefit payments, and this is expected to be the case again in the fiscal year of 1961.

Annual benefit payments were $10.5 billion in 1960, distributed among 14 million beneficiaries—8 per cent of the population. Payroll taxes totaled $8 billion. The taxes are collected by the Treasury and then credited to the Old Age and Survivors Insurance Trust Fund and the Federal Disability Insurance Trust Fund. Because taxes exceed benefits over long periods of time, the Old Age and Survivors Insurance Trust Fund has grown to about $20 billion. The holdings of the trust funds consist of government bonds, which are purchased with the monies collected therein. On these securities, interest is earned, amounting to about $.5 billion in 1959.

In view of the large amounts of taxes and benefit payments under old age and survivors insurance, it is clear that the operation of the system and the method used for financing it has significant effects on the economy at large. The over-all impact is a deflationary one as long as taxes exceed benefit payments. Payroll taxes are regressive in character, and they reduce the disposable income of those whose propensity to consume is high. As the proceeds are invested in government bonds, they allay the government's need to increase its loans from third parties, to reduce expenditures or debt redemption, or to raise taxes.

The deflationary effect of the payroll taxes, especially of the excess of taxes over benefit payments, may be desirable during periods of prosperity and full employment. However, modifications of the financial structure of the system may be called for in the future, should the threat of a depression occur. In such a situation, reductions of the payroll tax rate may recommend themselves, in order not to expose disposable income to an undue drain. If wisely used, flexible rates of payroll taxation could be turned into an important instrument of fiscal policy.

The system of financing old age and survivors insurance that is currently in use reflects a compromise between the so-called "pay-as-you-go principle" and the actuarial-reserve-fund principle. When the Social Security

Act was passed in 1935, those who drafted the legislation were leaning toward a system of financing old age insurance very similar to the one used by private life insurance companies. These levy premiums that are adequate to build up an actuarial reserve fund—that is, a fund whose assets at a given time suffice to meet all present and discounted future insurance benefits. After the enactment of the law, however, grave doubts arose about the need for building up so huge a reserve fund in a case where the United States government rather than a private concern is the insurer. Congress, until 1950, disregarded the increase in payroll tax rates which had been scheduled in the original legislation; and the rates remained at 1 per cent each for employee and employer.

Under the freeze of tax rates, which continued until 1950, the system might have approximated the pay-as-you-go principle, under which annual tax receipts are equal to benefit payments. However, under the influence of the huge increase in employment and wages during the forties, in conjunction with amounts of benefits that had not been increased and reflected the price level of the thirties, taxes continued to exceed benefit payments. A reserve fund was accumulated, which, while perhaps not large enough to fulfill the requirements of an actuarial reserve, still serves as a substantial contingency reserve.

Old Age Assistance. There still are some aged persons who have not become eligible for benefits under old age and survivors insurance or who receive benefits too small to meet their needs. To cope with the situation in which such persons find themselves, Congress has promoted the organization of noncontributory old age assistance, granted only to persons found in need and administered by state agencies under state laws.

Since the early 1920's, a number of states had attempted to aid the needy aged by setting up pension systems. Steadily the idea gained ground that the poverty of aged people was not only unnecessary but harmful to society at large. Two thirds of our aged are in low income brackets, while among the younger family heads of ages 45 to 64, two thirds are in the middle-income bracket. About two thirds of our aged receive payments either under old age and survivors insurance or under old age assistance programs.

Under the old age assistance provisions of the Social Security Act, the federal government will contribute, by grants-in aid, to pensions given by the states to needy people 65 years and over. The formula under which this aid is now given authorizes a federal contribution amounting to $24 of the first $30 of monthly pension plus from 50 to 65 per cent of the remainder up to $65. The precise percentage is determined by a formula based on each state's per capita income.

To be eligible for federal aid the state systems must meet certain standards. The system must be state-wide; it must be administered or supervised by a state agency; and it must live up to the administrative

requirements established by the Social Security Administration. On the whole the state is free in defining the requirement of need.

Old age pensions vary widely in the several states. The national average is about $65 a month, reflecting a range from about $30 in Mississippi to $112 in Connecticut. About fifteen out of every hundred aged people receive old age pensions. Here again there are wide variations. In the District of Columbia, only 5 out of every 100 aged receive assistance; in Louisiana, 6 out of every 10 do so. The total number of recipients used to exceed that of the beneficiaries of old age and survivors insurance until 1950, but since then it has fallen off and now is about 2.5 million. One fourth of these also are beneficiaries under old age and survivors insurance. The cost of the program to the federal government is approximately $1 billion per year.

Aid to the Needy Blind and to Permanently and Totally Disabled Persons. The federal government grants aid to the states also for assistance to the needy blind and to permanently and totally disabled persons. The aid is computed with the help of the same formula that applies to old age pensions. These programs cost the federal government approximately $200 million per year. There are great variations in other state programs of aid to groups not benefited by federal grants—the needy and the less than permanently and totally disabled. An expansion of the federal program to include such groups has occasionally been recommended but thus far has not been approved by the Congress.

Aid to Dependent Children. The Social Security Act also provides grants-in-aid to states which adopt standardized plans of aid to dependent children below the age of 18. The federal government supports such programs by granting to the states $14 of the first $17 of aid plus a variable percentage of the remainder up to a total of $30 per child. Two thirds of the fathers of the children who receive aid under this program are "absent" in the sense of having deserted their family, not being married to the mother, being divorced or separated. The average payment per family aided is $107 a year. Total federal payments under the program are an annual $600 million.

Workmen's Compensation. The financial incidence of a special type of hazard is generally changed by state legislation. This refers to the risk of injuries suffered by workers in the course of their employment. At common law, an employee who finds himself injured in this manner cannot claim indemnification from an employer who is innocent of misconduct. But relatively few industrial accidents and diseases arise from misconduct of the employer. They are rather a natural consequence of many economic activities, and their cost should be considered an ordinary expense of business.

The position of an injured employee before the advent of workmen's compensation legislation was weakened by the three common-law defenses

available to an employer. Under the so-called "fellow-servant" doctrine the master's responsibility ceased when the injury was due to the negligence of a fellow servant. Under the doctrine of contributory negligence, his responsibility also ceased when the injury was due, wholly or in part, to the failure of the employee to apply a reasonable amount of care in his work. Finally, there was the doctrine of the assumption of risk, under which the worker was held to have assumed the risks of injury arising from ordinary dangers of his chosen occupation. These defenses of the employer were gradually whittled away by state legislation during the nineteenth century. But an injured worker, nevertheless, continued to be burdened by long and costly litigation, unless he agreed to a compromise settlement which only rarely gave him his due. His position was greatly improved when the states, beginning with Maryland in 1902, began to enact compensation laws. By now, such laws can be found in all the states, the last state following in 1948, and in a number of them the laws apply not only to industrial accidents but also to occupational diseases.

The legislation, in effect, places the liability for risks of these types on the employer and thus turns them into an element of ordinary cost of production. Compensation generally is granted without a law suit and made in the form of standardized medical benefits and scheduled money payments for loss of wages.

State laws providing workmen's compensation are either compulsory or elective. Under the compulsory type of legislation, all employers who fall under the law are bound to pay the stated compensation. Under the elective type the employer is free to elect or reject the application of the legislation; but if he rejects it, he cannot employ the common-law defenses. The number of compulsory and elective laws are approximately equal, but legislation of the compulsory type applies to a larger number of workers.

The coverage of these laws varies from state to state. There is no state law that would cover all employees. Usually there are exemptions of employees in agriculture and of domestic and casual labor, also of employers who have only a small number of employees.

The expense of the employers' liability is commonly redistributed by mandatory insurance. Premiums are often determined in the light of the specific hazards that characterize given employments, with lower rates for the better risks. This type of merit rating has proved of considerable value in promoting the prevention of accidents and diseases on the part of the employer.

Insurance usually may be bought from private insurance companies. In seven states, however, it must be purchased from "exclusive" state funds; and in eleven states, there are "competitive" state funds which will sell insurance in competition with private concerns. In virtually all states the employer may qualify as a "self-insurer," if he gives evidence of his financial ability to carry the risk himself.

The number of workers covered by workmen's compensation legislation is estimated at approximately 44 million. About 1 per cent of these will draw cash benefits for compensation at any given time. The total amount of cash and medical benefit payments exceeds $1 billion a year.

HEALTH INSURANCE

The Social Security Act contains no provisions providing health insurance. In 1935, when the Act was passed, social insurance was new and untried in the United States, and those who drafted the bill did not want to add to its controversial character by including health insurance. By now the need for mandatory public health insurance has become widely recognized because the cost of medical care is too high for those upon whom much of the incidence of protracted disease falls: the aged and those in low-income brackets in general (see Fig. 34). In part the progress of medical science is responsible for this. Specialized services and equipment have

THE INCIDENCE OF DISABLING ILLNESS BY AGE GROUPS

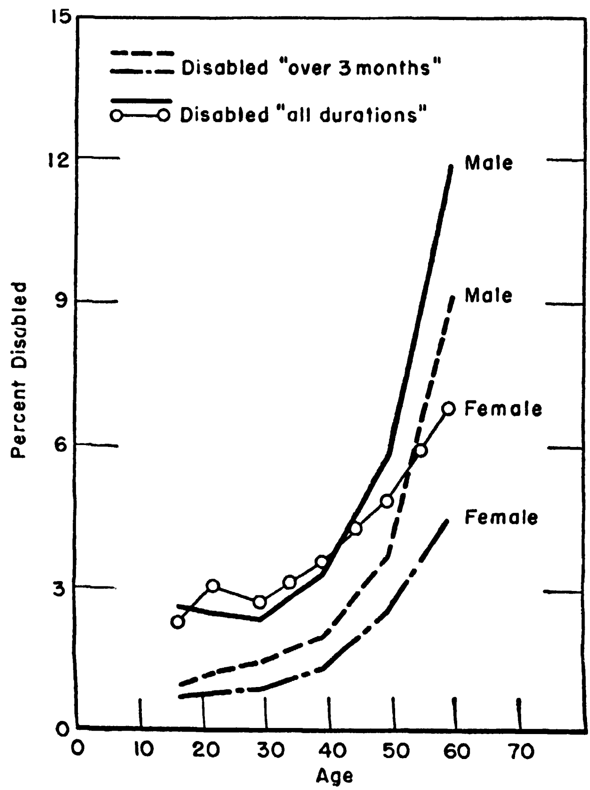

FIG. 34. The incidence of disabling illness rises sharply with age. Source: Report of the President's Commission on the Health Needs of the Nation, 1953, Vol. II, p. 10.

come to be required for a variety of diseases. They are available in clinics and other institutions with large overhead and high costs of maintenance.

Expenses for Medical Care. During the past few decades expenses for medical care have increased substantially, in monetary terms as well as in real terms. The average American incurred medical expenses during the 1950's which at the end of the period were about one third higher in real terms than at the beginning. Total expenses for health care are now well above $21 billion. About $5 billion of this is contributed by the federal, state, and local governments for a variety of programs serving servicemen, veterans, Indians, the patients in public institutions and in mental hospitals, and those receiving public assistance. Among the private expenditures for medical care of some $16 billion in 1959, those for hospitals loomed largest, amounting, as they did, to over $5 billion. They were followed by disbursements for medicines and appliances in the amount of $4.4 billion, and by payments for doctors' bills of $4.3 billion. This distributon of the expenditure is a relatively new one. Until 1956, doctors' bills had held first place. In that year they were outranked by hospital bills, and in 1959 they were exceeded also by the bills for medicines and appliances.

There are manifold reasons for the faster rate of increase of these types of expenditures.[6] A large part of a hospital's cost consists of wages, and these have risen rapidly. Moreover, the number of patients seeking hospitalization has grown substantially both in absolute and relative terms, the admission rate having doubled since 1935, when 61 per 1,000 people were hospitalized, compared with 135 in 1959. This increase is only in part offset by the reduction in the average number of days a patient spends in a hospital, which is now nine days, compared with 15 in 1935. As to medicines and appliances, medical progress has brought many new drugs, and many of these are prescribed as a routine measure. The prices of numerous drugs, especially of those which are sold under a trade name, are very high, excessively so according to the revelations of the Senate Antitrust and Monopoly Subcommittee, which made a study of the business policies and pricing practices of the drug industry in 1959.[7] There is great reluctance among the producers of drugs to cut prices for the benefit of the retail market. One drug company charged retail druggists $39.50 a thousand for a tranquilizer tablet that it sold to the government hospitals, where there is competitive bidding, for sixty cents a thousand. Doctors are exposed to relentless advertising of new drugs, old drugs under new names, new combinations of old drugs, and so forth. They work under pressure and have no time to test the advertising claims.

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[6] "Bill of Health," *Economist*, August 20, September 19, October 10, and October 24, 1959.

[7] "Administered Prices," Hearings before the Senate Subcommittee on Antitrust and Monopoly, 86th Cong., 1st sess., Parts 14 and 15 (Washington, D.C.; U.S. Government Printing Office, 1960); Alek A. Rozenthal, "The Strange Ethics of the Ethical Drug Industry" *Harper's Magazine*, May, 1960, pp. 73–84.

Hospitalization Insurance. Though opposed initially by the organized medical profession, various private ventures have sprung up with the view of organizing groups of people and to make available to them low-cost medical services. Local organizations and private insurance companies have gone ahead with hospitalization and "major medical expense" plans. A large number of such plans are made available to employees as part of the "fringe benefits" increasingly granted by management. However, policies for general medical care insurance, if adequate, are usually too expensive to afford relief to those who need it. Although some improvements have been made lately, hospitalization insurance often terminates with the insured person's employment, and if upon his retirement the policy is not canceled, he may find continuation unduly expensive.

The number of people under such plans has increased rapidly in recent decades, and about three of four persons now have some prepaid protection against the financial incidence of sickness, at least in the form of hospitalization insurance. Altogether about one third of the medical expenses of an insured are covered by prepayment plans. There is little hospitalization insurance in the rural states or among the aged people upon whom much of the incidence of illness rests. Hospitalization insurance does not take care of the physician's fee, which averages about 40 per cent of the cost of an acute hospitalized illness.

Health Insurance. Outlays for medical care are roughly 5 per cent of the national income. Occasionally the point is made that the American people spend 50 cents on tobacco products for every $1 they spend on medical care, and that they, if they really desire, could well afford to carry the financial burden of sickness without help. This argument is not well taken, however, as few smokers presumably will at one time have to meet a bill for cigarettes amounting to several thousands of dollars. But this may well be the cost incidental to sudden and catastrophic illness.

Mandatory health insurance, financed by contributions of employers, employees, and the government, has been in force in England from 1911 until the late forties, when it was replaced by a national health service (not an insurance) available free of charge or virtually so, to everybody in the country. While other countries in western Europe have not gone so far, most of them have a system of mandatory health insurance. In the United States, only Rhode Island, California, New Jersey, and New York have established sickness compensation funds which take care of nonoccupational disabilities by providing cash benefits to employees during times of illness. The plans are either operated exclusively by the state, as in Rhode Island; or private firms are allowed to compete for accounts, as in California, New Jersey, and New York. In the state of Colorado, which for long has been noted for its generosity to the aged, the program of old age assistance was supplemented in 1958 with free hospitalization for all aged people on the pension rolls. In addition, the pensioners are entitled to a stated number

of physicians' consultations at home or in the doctors' offices. The hospitalization program is operated under contract with the Blue Cross and Blue Shield organizations, and the entire staff of the state handling it consists of no more than five persons.

On the national level, health insurance plans have repeatedly been incorporated into bills, but none of these has secured passage. Opponents of such legislation, among which the American Medical Association[8] stands out, have financed an elaborate lobbying and propaganda organization, which has attached to such bills the label of "socialized medicine." These bills would establish a system of contributory health insurance under old age and survivors insurance, with an increased payroll tax to finance the new benefit payments—for a certain number of days of hospital and home nursing care, a stated number of home health visits and outpatient hospital services, etc. There would be no restrictions on the people's choice of their doctor or hospital. To discourage unnecessary hospitalizaton, patients might have to pay themselves for the first few days of hospital care. This was in bare outline the bill supported by Senator John F. Kennedy in 1960.

In a much less effective form, other bills provide for government reinsurance of private prepaid health insurance plans or for government payments to needy aged to help them defray the costs of such insurance plans. Under still other arrangements the federal government will contribute to medical assistance payments made by the states to their needy aged. This was the plan which after a protracted legislative struggle was incorporated into the 1960 amendments to the Social Security Act. This plan reaches only the needy aged, that is, those who have passed a means test. Those who receive old age assistance are eligible for another $12 per month for medical care, financed jointly by the federal and state governments. As many states maintain assistance plans for the needy aged, the new provision in many instances merely means that the federal government will contribute to assistance already granted before. Another provision of the 1960 amendments refers to the "medically indigent" oldsters, people who can take care of their ordinary needs and are not under old age assistance but who are unable to cope with the financial consequences of ill health. Again, the federal government will contribute to state assistance accorded to this group of people.

The Supply of Medical Services. Health insurance, in itself, will not improve the supply of medical services and other health facilities, which is considered inadequate by many thoughtful students of medical economics. The rapid progress of our real income is not paralleled by a similar increase in the supply of medical services. Although the ratio of physicians to the population is higher in the United States than virtually everywhere else in

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[8] The activities of this organization are examined in a critical manner in "The American Medical Association: Power, Purpose, and Politics in Organized Medicine," *Yale Law Journal*, Vol. LXIII (May, 1954), pp. 937–1022.

the world except in Israel and Soviet Russia, it is substantially lower than it was sixty years ago. There were 158 physicians per 100,000 people in 1900, 125 in 1930, and 133 in 1959 (see Fig. 35). This rate has varied relatively little in recent years. Regional differences are pronounced, with the

PHYSICIANS PER 100,000 PERSONS, BY TYPE OF PRACTICE, 1931–57 AND PROJECTION FOR 1975

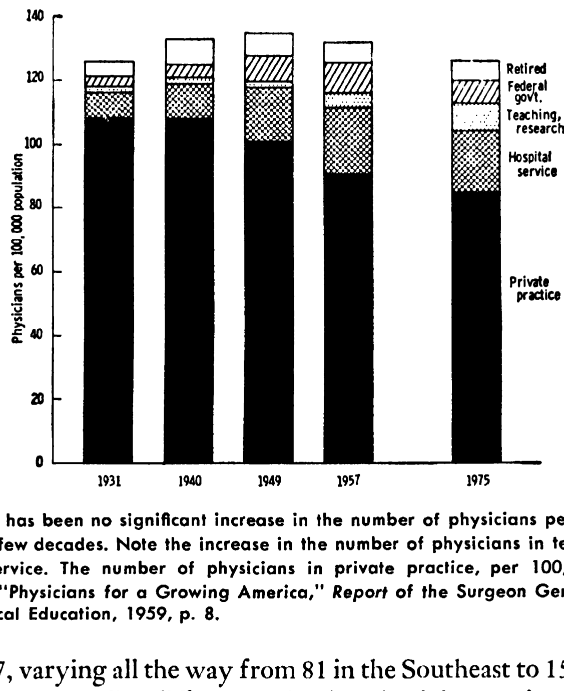

FIG. 35. There has been no significant increase in the number of physicians per 100,000 people during the last few decades. Note the increase in the number of physicians in teaching, research, and hospital service. The number of physicians in private practice, per 100,000 people, has declined. From "Physicians for a Growing America," *Report* of the Surgeon General's Consultant Group on Medical Education, 1959, p. 8.

ratio, in 1957, varying all the way from 81 in the Southeast to 154 in the Central Atlantic states. The differences in the physicians ratio are still more conspicuous when single states are compared. Here the physicians ratio varies from 69 in Mississippi to 185 in New York. The ratio is lowest in the isolated rural regions and increases with the size of the community, as does a physician's income.

The point can possibly be made that the automobile, the telephone, and the availability of new diagnostic and therapeutic devices have so increased a physician's productivity that relatively fewer physicians can do as well or better a job than was done by relatively more physicians in the past. But with the progress of medical science, there are so many more opportunities for physicians to render service that this point does not seem to be well taken.[9] Most doctors are badly overworked. Their average workweek is

[9] See Joseph W. Garbarino, "Price Behavior and Productivity in the Medical Market," *Industrial and Labor Relations Review*, Vol. XIII, No. 1 (October, 1959), pp. 3–15.

60 hours and they see about 26 patients in a day. An average individual consults his physician five times a year, as against two and one-half times in 1930. In that year only one in every two people consulted a doctor; now two in every three do so per year. In 1930, 40 per cent of a doctor's consultations consisted of home calls. By now this percentage has fallen to 8, further weakening the claim that the physician's automobile has significantly added to his productivity. The physicians are so overworked that they try to reduce the number of home calls as much as possible.

The number of hospital beds per 1,000 people has increased from 8.3 in 1934 to 9.2 in 1957. Here again there are pronounced differences among the various regions of the country. In some states, there are only 4 to 5 beds per 1,000 people. Under the terms of the Hill-Burton Act of 1946, federal grants are made for the construction of hospitals. In 1958 the number of hospital beds required to meet the standards established by this law was 2.4 million, compared with only 1.2 million existing acceptable beds. While the hospital situation gradually improves, much remains to be done.

The inadequacy of our medical personnel is not limited to physicians but refers to other health personnel as well, especially to nurses. In the present context we shall disregard these shortages and concentrate on the number of physicians. Over the past twenty years no significant increase has occurred in the proportion of young people attending medical schools; whereas the proportion of those receiving a college education has increased fourfold, and the proportion of young people entering schools of engineering, sixfold. In 1905 the enrollment in the medical schools of the nation was 26,147; in 1959, it was 29,614. The graduating class of 1905 was 5,606, that of 1959, 6,895 (see Fig. 36). Thirteen of our states have no full-fledged medical school. Approximately one half of our medical schools are public institutions which are supported from state and local funds and grant preferred enrollment to state and local residents. The ratio of applicants for admission to medical schools to the number of accepted applicants has in recent years been close to 2. The ratio of applications to accepted applicants is, of course, a much higher one, since many students apply for admission to more than one school. While the tuition charged for a medical education may seem expensive, the annual cost of such an education is far in excess of tuition, amounting to over $8,000 per student.

In 1959 the number of young physicians graduating from medical schools and schools of osteopathy in the country was 7,400. According to current plans this figure is to rise to about 7,900 in 1965, an increase that is insufficient even to maintain the current ratio of physicians to population. To maintain this ratio over the next fifteen years, the number of graduates would have to rise to 11,000 per year by 1975. Any significant increase in the number of physicians would require a substantial expansion of the capacity of our medical schools. The use of federal funds for this purpose, while it has frequently been proposed, continues to be resisted in influential

NUMBER OF MEDICAL GRADUATES AND OF PH.D.'S, 1920–58 AND PROJECTIONS TO 1975

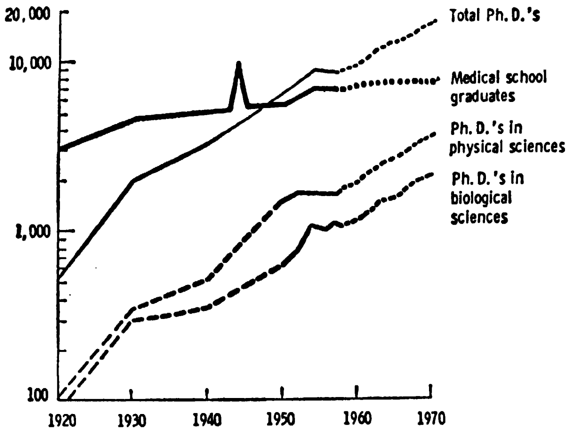

FIG. 36. The number of Ph.D.'s has increased at a faster rate than the number of medical graduates in a year. The chart is plotted on a logarithmic scale, where equal vertical distances show equal percentage changes or rates of growth. From "Physicians for a Growing America," *Report* of the Surgeon General's Consultant Group on Medical Education, 1959, p. 7.

quarters. Moreover, while the ratio of applicants for admission to medical schools to accepted applicants continues to be about 2, it was higher in the past. This seems to indicate that the financial burden of the protracted medical education is so heavy that many potential candidates for admission are discouraged from entering a career in medicine. The situation requires a reorganization of the curriculum and improved financial rewards during the later stages of the medical training. A medical training now calls for four years of college, another four years in medical school, one year of internship, and from two to five years additional training in the field of specialization. There is, of course, no pay during the initial stages, and only a nominal one during the later years. If the curriculum were specifically designed to deter people from joining the ranks of the physicians, it would not look much different.

The gravity of the situation regarding the supply of physicians is indeed such that measures that strengthen only the effective demand for their services will be of little help in improving medical care. Parallel efforts are required that will affect favorably both demand and supply. Unless this is done, the physicians ratio is likely to fall to a still lower level, doctors will be more overworked than they are at the present time, and the individual attention they are able to give to a patient will be intolerably reduced. As has been pointed out by an eminently qualified observer, "at the moment our people do not even seem to be aware of the danger they are courting. They seem to be unmoved by the prospective loss of capability

and productivity, by the unnecessary toll of life that will be taken, or even that is now being taken."[10]

GENERAL VIEW OF SOCIAL SECURITY

A few years ago, it could be said that the principal defects of our social security system were its unduly low benefits, its restricted coverage, and the absence of provisions designed to cope with such important risks as that of sickness. With respect to benefits and coverage, much progress has been made, especially in the field of old age, survivors, and disability insurance. In the field of health care the resistance of the organized medical profession to any change that might adversely affect the very high income status of medical practitioners has thus far prevented not only the entry of social insurance into the health field but also the desirable improvement of the supply of physicians.

The discussion of social security programs in the United States has been much stimulated by the experience of other countries. Of more recent foreign proposals, Lord Beveridge's comprehensive plan of social insurance, published in 1942, has aroused most interest. His scheme, providing security "from the cradle to the grave," is especially adapted to British conditions but has features that may well serve as model for other countries. Among these the following stand out: (1) Public participation in the costs of rearing all children, not only of persons depending on aid: (2) the assumption, by the government, of industrial insurance (small life insurance); (3) the proposal to base all social insurance benefits on the normal costs of subsistence.

INDUSTRIAL PENSIONS

Expansion of Coverage. The growth of life insurance and the expansion of the old age, survivors, and disability feature of the Social Security Act has of late been paralleled by an unprecedented rise in industrial pension systems. Compared with the number of persons covered by old age and survivors insurance, the coverage of industrial pension systems still remains relatively small, however, extending to one in every four workers.

Since 1945 the number of persons under such coverage has approximately tripled, but it is unlikely that the expansion will continue at so rapid a pace in the future. By and large, claims to private pensions are the privilege of an industrial elite, represented by powerful trade-unions and employed by large and financially strong firms. After having won a foothold among the larger industrial enterprises, the further spread of the pension idea among the smaller concerns is beset with many difficulties. Hence, private industrial pensions will remain a complement rather than a substitute of

[10] Address of President Grayson Kirk of Columbia University, before a meeting of the National Fund for Medical Education and the Association of American Medical Colleges, New York City, March 26, 1958.

benefits forthcoming under the old age and survivors insurance of the Social Security Act. As most of the private pension plans are of relatively recent origin, only about one in every ten aged persons receives benefits from them at the present time.

Factors Accounting for Growth. The expansion of the coverage under private pension plans is the consequence of a number of special factors, which will be enumerated forthwith. Apart from these the general conditions responsible for the growing concern with financial security during old age, as manifested by the rise of private and social insurance, have stimulated also the growth of industrial pensions. Among these general conditions, it will be remembered, there are such factors as the increase in the proportion of our aged population and the changing pattern of family life, with the aged people aspiring for the maintenance of a household of their own.

The special factors accounting for the growth of private pensions in recent years touch upon many facets of our economic history of the immediate past. On the employee side, a noticeable change has occurred in the traditional union attitude of suspicion against employer-financed pension plans. In fact, industrial pensions have become a favored objective of many trade-unions. This, again, is due to several factors. The policy of wage stabilization, pursued by the government during the war and postwar years, placed a ceiling on collective bargaining for traditional union objectives. However, while this policy operated against immediate wage increases, it did not preclude the making of pension arrangements. Trade-unions thus found a new issue for collective bargaining, which they pressed with vigor. The Supreme Court affirmed the obligation of employers to bargain on pensions under the provisions of the Labor-Management Relations Act, turning the refusal to undertake such bargaining into an unfair labor practice. A presidential fact-finding board, appointed to examine industrial relations in the steel industry, spoke in its report of September 10, 1949, of a "social obligation," resting "upon industry to provide . . . retirement allowances, in an adequate amount as supplementary to the amount of security furnished by the government."

The raising of the pension issue on the employee side was supported also by the inadequacy of benefits available under the Social Security Act. Old age benefits had remained unchanged until 1950, while the wartime and postwar rise in prices continuously and relentlessly reduced their real value. Moreover, many high-level executives of industrial concerns had arranged for large, company-financed pensions for themselves, and these arrangements did not go unnoticed among the rank and file.[11]

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[11] Providing for old age had become more difficult also for the well-to-do because of the steep rise in income taxation and the decline of interest rates. The former factor reduced the disposable income available for saving, while the latter raised the rate of saving required to accumulate a fund of a given size.

Of great importance also was the fact that a substantial part of the cost of private pensions, in the light of new rulings, could be financed at the expense of the federal income tax collector rather than of the company itself. If a pension plan lives up to certain requirements, the employing concern is permitted to deduct its contributions from its taxable income. Under high rates of corporate income taxation, combined, at times, with steep excess profits taxes, this implied that the equivalent of a large part of a firm's potential outlay for pensions would go to the tax collector if no pension plan were in existence. An individual, on the other hand, eager to build up a fund to finance a pension for himself, would have to make contributions out of an income initially reduced by the income tax.

Types of Pension Plans. Pension plans vary greatly in detail, although the basic elements are substantially alike. A typical pension plan is the outcome of a collective bargain under which the employer grants his workers, after some 25 years of employment with the firm, a pension that will vary from 20 to 45 per cent of average wages. Arrangements of this type are known as "pattern" plans; whereas the older types of pension plans, which are granted by the employer without negotiation with the union, are known as "conventional."

The typical plan provides that the cost of the private pensions be borne by the employer. Such a plan is referred to as "noncontributory," as distinguished from the "contributory" plans which, in part, are financed by employee contributions.

Under some plans, especially under the contributory ones, the employee acquires a "vested right," which enables him to change his job without losing his claim to the accumulation from which his pension is to be financed.

A company which sponsors a pension plan makes an important contribution to the morale of its employees, providing them with a new incentive. By the same token, a company which maintains a pension plan will be in a better position to attract desirable help from the outside than a similarly situated company without a pension plan. Existing pension plans tend to reduce costly labor turnover, especially among the age group from 30 to 45, whose members will think twice before they abandon their pension rights. Furthermore, if the pension plan makes the retirement of workers of a certain age mandatory, the company's payroll will be free of inefficient oldsters.

However, mandatory retirement forces off the payroll inefficient and efficient employees alike, to the detriment of the latter and of the whole nation. In the light of this consideration, and also because of the brisk demand for labor, the rules pertaining to the retirement age were made more flexible. If the retirement is postponed, pension costs can be substantially reduced or benefits raised. A pension of $130 at age 68 is estimated

to cost no more than one of $108 at age 66 or one of $100 at age 65.

Pension plans may operate to the detriment of workers over 45, who, in any event, have no easy time in locating a new job. Firms may be even more hesitant to hire such workers in view of the heavy pension liability incidental to their employment.

If, as is true in many instances, the worker has no vested rights—that is, if he loses his pension claim upon separation from a given employer—his mobility will be unduly restricted. The penalty for changing jobs is so severe in these cases that the worker is prevented from making the best of opportunities beckoning elsewhere. But if rights are vested in the worker, the reduction in labor turnover is liable to be illusory.

Financing Pension Plans. It is, of course, of the utmost importance that the pension plan be soundly financed. Otherwise the employee cannot be sure that the benefit payments, which will fall due in the distant future, will actually be forthcoming. If the employing concern is under duty to finance the plan properly, it is less likely to assume liabilities which it will be unable to fulfill than if it merely promises to pay pensions when they fall due. In past years, pension plans have occasionally failed, the most dramatic example having been the difficulties of the pension fund of the railroad industry, which was rescued by the federal government in 1934.

Unfunded Plans. Pension plans are either funded or not funded. Plans which are not funded are financially unsound. In their most extreme form, they proceed on a pay-as-you-go, or cash disbursement, basis. The firm then keeps a retired employee on the payroll at reduced earnings and pays him his benefits out of current revenues. Plans of this sort offer no reliable promise of fulfillment. Their cost is high, since no fund is accumulated on which interest can be earned. Slightly better, but still inadequate, are plans which delay the funding until the actual retirement of an employee, providing, for example, for the purchase of an annuity upon retirement.

Funded Plans. A firm which initiates a pension plan assumes two sorts of obligations. First, it must finance the pension claims of its employees which arise from the services which they have rendered in the past—the past service liability. The assumption of this liability raises retroactively, as it were, the production costs incurred by the firm during past periods. In addition the firm must finance the pension claims of its employees based upon services to be rendered in the future—the future service liability, which is going to increase the firm's production costs in the periods ahead.

The amount of money required to defray currently the future service liability usually does not exceed 6 to 7 per cent of a firm's payroll. The amount required to meet the past service liability varies, depending, as it does, upon the length of time a firm has been in existence. If a newly established firm immediately starts out with a pension plan, its past service liability is zero, there being no past services. A relatively young concern may

have a past service liability of one third of its annual payroll. For an older concern the liability is greater, increasing to one half or three fourths of the payroll.

When a firm currently meets its future service liability and pays interest on an amount equal to the past service liability, the pension plan is said to be partially funded. When the firm currently meets its future service liability, and, in addition, pays off the past service liability, either at once, or, as is more usual, in the form of installments, the plan is completely funded. Private pension plans that are not completely funded are basically unsound, although some students of the matter are satisfied with partially funded plans. They point out that that part of the fund represented by the past service liability will ordinarily not be required for the payment of pensions. This is true so far as it goes, but it fails if the firm is liquidated or if it does not keep the number of its employees constant.

Few firms are in a position to pay off the entire past service liability at once. Moreover, to be deductible from taxable income, no more than 10 per cent of the past service liability may be paid off in any one year. Many companies' plans thus provide for complete funding over a period of 10, 20, or more years. For a 20-year period the annual cost of the entire pension program is estimated at about 10 per cent of the payroll. After completion of the period the plan then continues on a fully funded basis, with costs reverting to 6 to 7 per cent of the payroll.

Funded plans either are insured or self-administered. The insurance arrangement is preferred by the smaller firms; and, in fact, most funded plans are of the insured variety. A majority of the persons covered by funded plans, however, is under noninsured programs. Under these, a trust is created to handle the reserve fund and administer the plan. Usually a bank is appointed trustee.

The insured plans, it is held, ordinarily are based upon highly conservative methods of estimating costs. Under such plans, arrangements are made, again in many different forms, with an insurance company, which receives premiums, invests the proceeds, and pays out the benefits. Insured plans rarely have failed in the past.

To safeguard the funds, the Congress passed in 1958 the Welfare and Pension Plan Disclosure Act, which requires that descriptions of pension plans be filed with the Secretary of Labor and that annual financial reports be submitted. The federal law is inadequate and does not constitute a safeguard against abuses. In a number of states additional regulations of greater stringency prevail.

Pension Funds and the Capital Market. In 1960, the amount of money in private pension funds approached the $50 billion mark, compared with $12 billion ten years earlier. Another $100 billion was in government retirement funds—for railroad workers, civil servants, and old age and survivors insurance—which held almost three times as much as in 1950. Because of

the size to which private pension funds have grown, they represent a new and important factor at the capital market.

The total of such funds, public and private, increases every year by about $10 billion, or by close to two thirds of the annual amount of individual financial savings during the late 1950's—additions to currency and bank deposits, savings shares, securities purchases, etc.

The investments of the noninsured corporate pension funds are of special interest (see Fig. 37). Many of these are administered by the large New York banks as trustees. The funds—$28 billion in 1960, that is, more than

Assets of Corporate Pension Funds, in Billions of Dollars

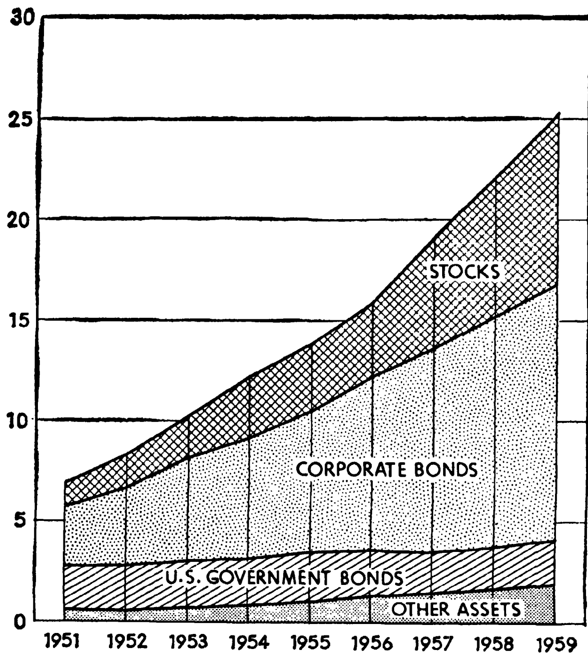

FIG. 37. This shows the growth of the assets of corporate pension funds, exclusive of those administered by insurance companies and unions. From Securities and Exchange Commission, *Statistical Series*, May 31, 1960.

the amount in the federal government's old age and survivors insurance trust fund—need not be held in highly liquid form, since benefits can be paid out of investment income and new inflows of money into the funds. It is thus not surprising that these pension funds have come to be an evergrowing receptacle of "blue chips," to which they will hold on through the years. A typical fund may contain close to 45 per cent of the value of its investments in the form of common stocks, about 40 per cent in cor-

porate bonds, and the rest in U.S. government securities, mortages, and preferred stocks. Many students of finance are of the opinion that the funds' absorption of high-grade securities is bound to exert a steadying influence, especially on stock prices, and to attach, as time goes on, a noticeable scarcity value to these securities. Others will point out, however, that in terms of the total value of outstanding securities, the proportion held by the pension funds is only a small one. As regards the market value of all equities listed on the New York Stock Exchange at the end of 1959, over 4 per cent of it was in equities held by noninsured corporate pension funds, about 1 per cent more than at the end of 1955. The student of economics, appreciating, as he does, the significance of marginal rather than total quantities, will be reluctant to belittle the role of the pension funds at the securities markets.

Many individual pension funds, especially the old, established ones, are very large. The pension fund of AT&T is about $3 billion. That of Sears, Roebuck & Co. is about $1 billion. That of the Ford Motor Company, which is only ten years old, is about $250 million. If a pension fund were to invest in the stock of its parent company, it could in many instances control the latter before long. If it were to concentrate its investments and accumulate stock of another company, it could control this one. With some notable exceptions—the Sears, Roebuck pension fund is by far the largest stockholder of Sears stock, holding over 25 per cent—the funds have, however, adopted an investment policy which diffuses the value of their portfolios over many different securities and does not give them control over individual companies. But at the rate at which the funds' assets grow, they can be converted into an instrument of control over an ever-expanding segment of American industry, exercised by the trustee-banks and potentially by the beneficiaries of the funds.

SUMMARY

Incomes which accrue to people in the ordinary business of life may suffice to meet common needs, but provision must be made for events that happen as the result of unpredictable forces. This can be accomplished with the help of insurance. Insurance redistributes losses from risks.

The economic significance of life insurance does not exclusively rest upon the protection which it grants to the policyholder and his family. The purchase of life insurance has become so common that insurance companies have assumed the role of a leading investor. Their investments are less venturesome than those which an individual might willingly undertake for himself.

Most types of life insurance, of which there is a great variety, contain elements of investment as well as of protection. The stronger the invest-

ment element, the higher is the cash surrender value of the policy. Insurance companies are subject to public regulation exercised by the states.

In spite of the availability of private insurance for many common risks, numerous people fail to make adequate provisions, being hampered by insufficient financial resources. For some risks the costs of private insurance are high, and for others such insurance is ordinarily not available. For these reasons, public insurance has come to the fore. There is a mandatory system of old age, survivors, and disability insurance for wage and salary earners and for the self-employed, sponsored by the federal government. The federal government has also promoted state programs of assistance to the needy aged, to dependent children, to the needy blind, and to the permanently and totally disabled. State legislation makes employers liable for compensation if industrial accidents befall workers. Provisions for health insurance are advocated by many students of social security.

In addition to life insurance and social security, many employees of the larger industrial enterprises have claims to pensions granted under private plans. Private pension plans have greatly increased in recent years.

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STUDY QUESTIONS

1. Which type of life insurance purchases only protection and does not constitute saving?
2. What are some tax advantages of the purchase of life insurance?
3. What types of life insurance companies do you know?
4. Why are premiums for limited payment life insurance higher than premiums for whole life insurance?
5. What is meant by actuarial science?
6. What is the difference between the increasing premium plan and the level premium plan?
7. What is the status of federal regulation of life insurance?
8. What is the difference between public insurance and private insurance?
9. Which provides greater protection against inflation, life insurance or old age and survivors insurance?
10. What is the difference between old age and survivors insurance and old age assistance?
11. Which groups are excluded from the coverage of old age and survivors insurance?
12. What are the three common-law defenses against the claim of an employee for damages suffered on account of work injuries?
13. What provisions regarding sickness benefits does the 1960 amendment to the Social Security Act contain?

14. What is the situation regarding the supply of medical personnel?
15. What factors account for the growth of industrial pensions?
16. What types of pension plans do you know?
17. How do pension plans affect the mobility of workers?
18. What is the role of pension funds on the capital market?
19. Why is it desirable to have a pension plan funded?
20. In connection with private pension plans, what is the meaning of vested rights?

Chapter 13 PROBLEMS OF HOUSING AND URBAN DEVELOPMENT

High incomes and sound prospects of financial security do not provide solutions to all the problems confronting the individual. There was, to name only one, continuous concern with the housing problem during the forties; and while the problem has become a less pressing one in recent years, it still poses a number of issues that call for discussion. In this chapter we will consider first the factors which determine the demand for housing, and we shall see how this demand is being met. The discussion then turns to the high cost of housing and to problems of home ownership. The chapter is concluded with an analysis of public housing, slum clearance, urban renewal, the movement to the suburbs, and related matters affecting the housing market.

THE DEMAND FOR HOUSING

The most important single factor affecting the demand for new housing is the rate at which new households are formed. The formation of households, in turn, reflects the marriage rate, that is, the number of marriages per thousand people. This rate reached a peak in 1946—after the end of World War II brought the removal of an obstacle that had resulted in the postponement of many marriages—and has since fallen off to a more normal rate of 8, or 1.4 million marriages per year. A new upward movement is expected to set in after 1960, when the large number of children born during the forties will become of marriageable age.

The number of newly wed couples is not exactly equal to the number of claimants for new housing facilities. While new marriages are formed, others are dissolved by death or divorce. Again, marriages dissolved by the death of one partner do not in all cases result in the freeing of a dwelling

unit. More so than in the past, widows and widowers tend to maintain their own quarters instead of joining the households of friends or relatives. For the early 1960's, net household formation may be estimated at 1,020,000 a year, to rise to 1,080,000 during the second half of the decade. To put it another way: our population is expected to increase by about 3 million every year during the next few years. Assuming an average size of 3.35 persons per household or dwelling unit, some 1,000,000 dwelling units would be required every year to house the net addition to the population.

This, however, is not the final word. Every year a certain number of dwelling units are demolished or lost through fire and other catastrophe, and the inhabitants of these will find new quarters—say, 200,000 a year. Furthermore, the distribution of our population among the different regions and localities is not a stationary one. There is a good deal of internal migration, particularly to the West Coast. People are unable to take their homes along when they move to a new location—unless they happen to live in a trailer—and an increase in the vacancy rate at the place of their former residence does not do them any good when they look for living quarters at the place of destination. To provide an adequate over-all vacancy rate, another 100,000 dwelling units are needed per year.

In addition to this, there is a substantial replacement demand. Houses get older, and as time goes on, they need to be replaced. As of 1956, only one in five dwelling units was in structures built after April, 1950. Almost 54 per cent were in structures built in 1929 or earlier. About 25 per cent were built between 1930 and 1950. While great improvements have been made in the quality of housing, 17 per cent of all dwelling units were still without private flush toilet in 1956. Broadly speaking, if we assume that our entire housing stock of some 60 million dwelling units calls for complete replacement every hundred years, this would make for annual replacement requirements of 600,000 units. As demolitions have already been considered earlier, and estimated at 200,000, the replacement demand to be added to requirements would be less than the full number, say 400,000 units. Thus:

New households, net	1,020,000
Demolitions	200,000
Vacancies	100,000
Replacement	400,000
	1,720,000

This would be made up of new construction of 1.4 to 1.5 million dwelling units a year; the rest would come from conversions of old homes that have become too large to meet current requirements, from trailers, seasonal bungalows, and the like.[1]

[1] See Editors of *Fortune*, *Markets of the Sixties* (New York: Harper & Bros., 1960), pp. 133 ff.

Thus far we have used the expressions "requirements" and "demand" interchangeably. This is really not a satisfactory procedure, and we must now correct it. A person may "require" palatial living quarters, a penthouse, picture windows, or an outdoor swimming pool; but unless his requirements are supported by effective demand, that is, purchasing power, he will not be able to meet them.

If in our examination of the effectiveness of the demand for housing we relate income to the demand for housing, we must anticipate an observation that will be discussed more fully on a later page: the fact that since the early thirties, building costs have risen much more sharply than the cost of living. The reaction to this among average families has been a peculiar one. Whereas such a family now has a real income substantially larger than in 1929, the value of the average dwelling unit, again in real terms, has actually fallen. This means that a family in a given income bracket will be satisfied with a home lower in value than the home a typical family in the same bracket would have inhabited thirty years ago.[2]

This phenomenon is the result not only of higher building costs but of a number of other factors, such as the government's promotion of low-priced housing construction; the decline in the average size of the household from 4 persons in 1930 to 3.35 in 1960; the increasing employment of women in industry; the difficulties in finding household help; and the emergence of rival bidders for the ordinary consumer dollar such as expensive automobiles, television sets, and other household appliances.

The greater prominence of relatively low-priced homes does not mean, however, that the low-income groups have adequate living quarters. Housing conditions are especially deplorable among racial minorities. In 1950, nearly 70 per cent of the nonwhite families lived in dwellings that were characterized as dilapidated or were deficient in plumbing facilities. This is nearly three times the proportion of white families living under such conditions.

THE SUPPLY OF HOUSING

In the preceding section, we have estimated the annual requirements for new nonfarm dwelling units at 1.4 million. It so happens that this is approximately the number of such dwelling units constructed in 1959.

Construction of nonfarm dwelling units reached a previous peak of 1.4 million in 1950 and since then has averaged 1.2 million. It is interesting to note that the 1-million mark of newly constructed nonfarm dwelling units was almost reached as long ago as in 1925, when the figure stood at 937,000 (see Fig. 38). This number was not exceeded until 1949, and then only by a small margin. Meanwhile the population had risen from 116 to 149 million,

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[2] *Ibid.*, pp. 153 f., and "The Insatiable Market for Housing," *Fortune*, February, 1954, p. 103.

NEW DWELLING UNITS IN NONFARM AREAS

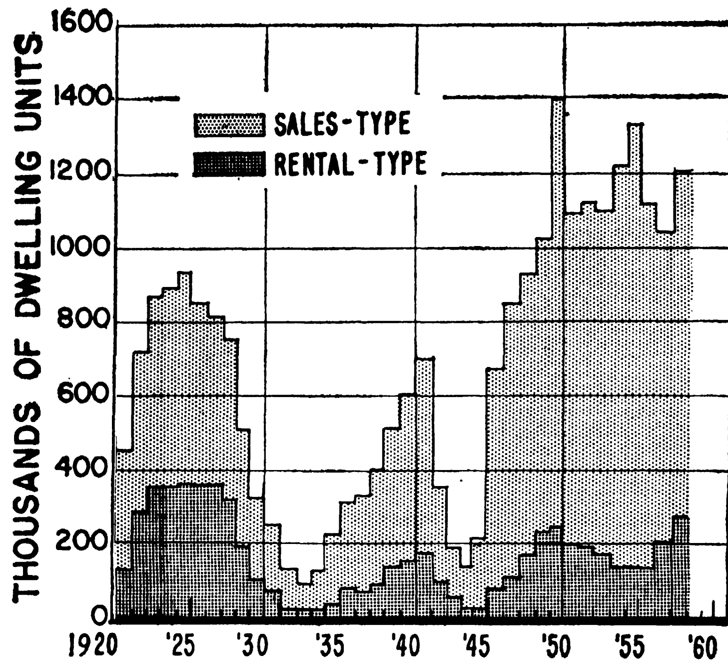

FIG. 38. Housing construction fell off severely during the depression of the 1930's and the war period of the 1940's. Since then there have been setbacks, but the number of new dwelling units in nonfarm areas usually is well over one million a year. From Housing and Home Finance Agency, *12th Annual Report,* 1958, p. 9.

and real per capita income had doubled. If we build a million or so new homes a year, we are not doing much better than we did thirty-five years ago, when population and real income were much smaller. Moreover, the average dwelling unit of 1925 had considerably more floorspace than that of the presently constructed one.

In past years, construction activity has been subject to pronounced fluctuations, so much so that many economists speak of building cycles, with each cycle spanning a period of about twenty years (see Fig. 39).

A number of attempts have been made to explain the reasons for the cyclical behavior of residential construction activity. Some students of the matter have related the building cycle to the marriage rate, without being able, however, to eliminate the possibility of a causal effect of the building cycle, by way of changes in income and employment, on the marriage and birth rate. Others have made much of the influence of wars on building cycles. While it is undoubtedly true that residential building activity comes to a virtual standstill during a major war, this factor does not provide an

THE BUILDING CYCLE IN THE UNITED STATES

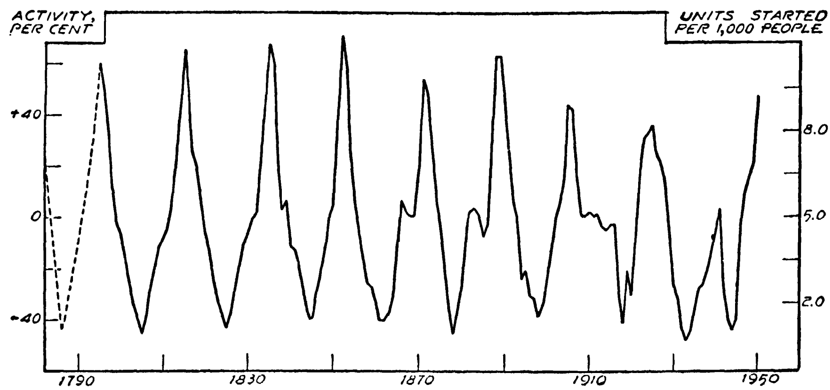

FIG. 39. Fluctuations in building and real estate activity have an appearance of regularity. The peaks and troughs indicate a cycle of about twenty years. Source: F. A. Pearson and Associates, "Prices, Building and History," *Farm Economics* (New York State College of Agriculture), October, 1951, p. 4736.

adequate explanation of the length of the cycle. No convincing explanation of the building cycle has as yet been produced.

If a trough of the building cycle coincides with a severe depression of business in general, as was the case during the thirties, the situation is a serious one indeed. Total nonagricultural employment then declined by one third, but employment in the residential construction industry went down by four fifths. It is thus correct to say that the behavior of the construction industry, a typical investment industry as well as a key industry, accounts to a large part for the fluctuations in business activity. Its decline during a depression spells a reduction of employment and income as well as a shortage of housing facilities that will be felt for years to come.

THE COST OF HOUSING

In analyzing the cost of housing, we must distinguish between the initial outlay, the expenses incidental to financing it, and taxes and maintenance. The initial outlay is composed of the following items: land and improvements, materials, labor at the site, contractor's profit and overhead. While the relative importance of the several elements is subject to substantial variations, depending upon the type of building, the costs of materials and of labor at the site are larger by far than those of the other items and may constitute as much as three fourths of the total. The cost of land and improvements, around 10 per cent of the total in the 1940's, has risen fast since mid-century and is now close to 20 per cent.

Land and Improvements. The rise in land values relative to other cost items is a new phenomenon since such values have been falling for several

decades of the century. As the cost of holding unimproved land is made up of real property taxes and compound interest on the initial investment, this cost has gone up parallel with the rise in interest rates. Holding unimproved land means foregoing the returns on the money sunk into it. Depending on the rate of interest that could be earned elsewhere, an amount will double in 23 years at 3 per cent interest and in 12 years at 6 per cent. The second alternative about reflects what has happened in recent years. Rising interest rates, in combination with inflation, which makes people eager to invest in land, do not tell the whole story, however. Of great importance has also been the movement to the suburbs, which has caused developers and builders to bid up the prices of choice sites.

Contracting and Subcontracting Once a site has been selected the sponsor of a building project will enter into relationships with a contractor, whose business is the utilization of construction materials and labor in construction work for others, or for himself for speculative and investment purposes. The contracting business continues to be characterized by the small scale of its operations. Apart from the general contractor, there are numerous kinds of specialized contractors. By census count, their number exceeds thirty. The principal contractor, who assumes responsibility for erecting the building and organizing the construction job, makes his services available on the basis of a bid or against payment of cost plus fee. He fulfills his obligation by doing certain works himself, by making subcontracts, and by engaging in a multiplicity of transactions with city officials, labor organizations, suppliers of materials, and subcontractors.

The organization of the construction job is thus quite unlike the typical operations in modern large-scale enterprise. There are countless occasions for waste and delay. The participation of so many more or less independent agencies operates against proper synchronization. Deliveries of materials may not be forthcoming at the right time. One subcontractor may have to wait until the other has done his job. Labor may have to be kept in readiness over unduly long periods of time; city and union officials may prove untractable; the capriciousness of the weather may impede progress according to schedule.

On occasion, contractors have sought to monopolize their trade by restrictive practices. Local contractors have maintained bid depositories under which they submitted their bids to a central office. This then brought pressure to bear on low bidders, threw out bids considered too low, and allotted them in rotation to a chosen few. Manipulations of this type, though they are discredited and unlawful, may contribute to higher construction costs.

Building Materials. Building materials, the largest cost item, often are inadequately standardized. As even a small home requires many hundreds of different types of merchandise, the lack of standardization inflates the number of available items enormously. On the buying end, there is a large

number of small contracting firms which purchase from a variety of specialized retailers rather than from manufacturers or wholesalers.

Manufacture of building materials is highly concentrated among monopolists, oligopolists, and restrictive combinations. This applies to lumber, steel, plaster, cement, plumbing, glass, copper, concrete bars, structural shapes, and many other items required in construction work. In a market situation of this type the incentive to reduce prices and operate under optimum conditions of cost is small anyhow. It is further reduced by the negligible importance of the price of one item in the whole materials bill. Price reductions of one specific material, therefore, are unlikely to lead to a substantial increase in sales. Reductions of distributors' margins are resisted also, and the long-winded distribution system is maintained by collective action among producers and distributors, sometimes aided by contractors, labor unions and municipal governments.

Violations of the antitrust laws have been frequent among the suppliers of building material. Trade associations and other groups of lumber interests have been active in restricting supplies, allocating markets, and maintaining prices. In the field of plumbing and heating, distribution channels were established under which manufacturers would sell only to jobbers who confined their sales to master plumbers; master plumbers would not install supplies which they did not sell; and the plumbers' unions would not work for master plumbers who did not obtain supplies through these channels. In the cement industry, a system of delivered prices similar to the basing point system fashioned by the steel industry was in force for thirty years. This system results in identical bids of all suppliers, wherever they may be located.

Labor. Labor in the building trades and related occupations is organized in a number of craft unions. The policies of these have been often criticized, especially the frequency and duration of jurisdictional disputes, the resistance of unions to technological change, their insistence on laborious working rules, and their occasional collusion with contractors and materials suppliers. Though wage rates in the building trades are high, the seasonal character of the business operates against excessive annual earnings.

Numerous jurisdictional disputes among painters and electric workers, carpenters and plasterers, carpenters and sheet metal workers, carpenters and woodworkers, occasionally lasting for decades, have caused strikes and delays in construction work. Resistance to technological change sometimes assumes the form of restrictions on output or of refusals to use certain types of equipment, especially those that come to the site in advanced stages of processing. Occasionally, antiquated practices are perpetuated by building ordinances drafted on behest of local building trades.

Since union activities are exempt from the application of the antitrust laws, obnoxious practices may persist with impunity. Restrictive practices of building-trade unions have been held unlawful only in cases where there

was collusion between unions and nonlabor groups.[3] There is little chance for legal relief if the union does not openly or secretly conspire with contractors, manufacturers, or dealers.

The Rising Cost of Building. It has been noted that building costs in recent decades have increased at a considerably faster rate than other prices. If we take the year 1926 as a base both for the consumer price index and the Boeckh index of residential dwelling-unit construction cost, the former stood at 163 in 1958, whereas the latter had risen to 277. The cost items entering into construction have become relatively more expensive than other things. We have noted also the behavior of the middle- and high-income families, who have increased much faster in numbers than the number of dwelling units in the price range that would have been considered typical for residences of families in equivalent income brackets in 1929. As these families, on the whole, now live in less expensive quarters relative to their incomes, the conclusion seems warranted that the demand for housing is more elastic than was believed true in the past. In the light of recent investigations, an elasticity of 1.3 appears not unlikely.

This would mean that a reduction of the disparity between building costs and other prices might possibly result in a larger total outlay for housing and that the building industry, in a way, has priced itself out of part of the market. There are indications that the building-trade unions as well as representative firms in the building industry have become aware of this situation. They show apprehension of the high level of building costs.

In appraising the rising cost of building and the effects that might ensue if a reduction were to take place, we must, however, keep in mind these considerations:

First, the initial outlay incurred for a building is not the only item that determines the cost of shelter. The latter generally is calculated and paid for on an annual basis and includes interest and amortization for debt, operation and maintenance, taxes, and utilities. It is true that debt service is the largest of these items, requiring perhaps as much as one half of the annual disbursements. Debt service charges, of course, reflect the amount of the debt, which in turn mirrors the outlay for building costs; but it is a function also of the interest rate and of the amortization period. The building costs, we have seen, comprise a great variety of different items. A reduction in the cost of any one of these items would only have moderate effects on the periodic charges for the cost of shelter.

Second, the various indexes of the cost of construction or of building, including the one referred to here, do not really relate to changes in the average cost of constructing a house. Instead, they indicate the average changes of the prices of the various items that enter into construction. In a

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[3] *United States* v. *Brims*, 272 U.S. 549 (1926); *United States* v. *Hutcheson*, 312 U.S. 219 (1941); *Allen Bradley Co.* v. *Local #3, Brotherhood of Electrical Workers*, 325 U.S. 797 (1944).

sense the building cost indexes do not register the marked progress which, of late, has occurred as a result of the ingenuity of various builders. By means of rationalization, standardization, prefabrication, and the like, many efficient builders have been able to offset the effects of rising costs of the various construction items on the cost of the house. Rationalization and standardization have on the whole been accomplishments of large building concerns such as Levitt, Centex, and General Development, which are able to derive substantial benefits from economies of scale in purchasing and preparing construction material. The end of the sellers' market in the housing field has brought about a more widespread adaptation to mass production methods throughout the construction industry. Unions have relaxed ancient work rules, and the manufacturers of building materials have come forth with new products that reduce the amount of work at the site. Prefabrication accounts now for about one in every ten new homes, as compared with one in twenty in the mid fifties. About half of the prefabricated houses are the product of one company, National Homes Corporation. Prefabrication reduces the cost of a home by about 20 per cent.

Housing Finance. A considerable part of the initial outlay for house building usually is borrowed and repaid during subsequent periods which sometimes extend beyond the anticipated usefulness of the house. In conjunction with such loans the lender receives as security a proprietary interest, called mortgage. He is thus protected by his right to the premise but, apart from this, may hold the borrower liable with his other possessions.

The amount of nonfarm mortgage debt outstanding approached the $200 billion mark in 1960, having passed the $100 billion mark in 1954. Three fourths of the amount is taken by institutional lenders—savings and loan associations, insurance companies, savings and commercial banks. The proportion of the value of the building for which mortgage credit is granted has slowly risen and now approximates 90 per cent, and, in the case of veterans housing, as much as 100 per cent. Interest rates on mortgages vary from 5 to 6 per cent.

The institutional lenders obtain their funds from individual savers. The government has facilitated their operations in various ways, most notably through the organization of the Federal Home Loan Bank System in 1932 and of the Federal Housing Administration two years later. The Home Loan Bank System is made up of eleven regional banks, whose stock is held by their members, primarily building and loan, and savings and loan associations. The members may borrow from the banks on the security of urban mortages, while the banks in turn obtain funds through the sale of debentures. These are not guaranteed by the United States. Deposits with Federal Savings and Loan Associations and with approved state-chartered associations are insured in a similar manner as are bank deposits.

The Federal Housing Administration does not take mortgages but insures those taken by institutional lenders. In 1960 there was in force over

$30 billion FHA mortgage insurance. Since its inception in 1934, the program has facilitated the construction of 5 million homes. Insured mortgages are amortized within a period from 20 to 30 years. They carry interest at a rate that has risen parallel with other interest rates to 5¾ per cent in 1959, to which is added an insurance fee of 0.5 per cent. These mortgages may be serviced by equal monthly payments. Older systems of housing finance often made the whole mortgage fall due at the end of the loan period.

By insisting upon the observation of adequate standards, the Federal Housing Administration has done much to improve the quality and type of residential construction on a nation-wide scale. It has facilitated home ownership by lengthening the amortization period of mortages. Federal insurance of mortgages has been most prominent in the field of small homes, although it has been made available also for larger rental projects housing 800,000 families. In addition, it has helped to repair or improve, by means of special programs, some 22 million properties. Altogether the record of the Federal Housing Administration, which has been characterized as the outstanding single influence on American housing in the twentieth century, has been an excellent one. Home mortgages in default were less than 6 of every thousand on which insurance was in force. The principal blemish attached to the Federal Housing Administration program relates to the high interest return which it facilitates on investments that are insured, that is, carry no risk. During the 1940's, when other interest rates declined, rates on insured mortgages were not reduced, while during the 1950's FHA rates rose in line with other interest rates.

While the Federal Housing Administration insures mortgages, the Veterans Administration guarantees mortgages to help a veteran to finance the purchase of a home. The amount of such mortgages outstanding in 1960 was $30 billion, about the same as that insured by the Federal Housing Administration. The interest allowed on the guaranteed mortgages was raised to 5¼ per cent in 1959. The terms of the guaranteed loan are somewhat more liberal than under the Federal Housing Administration program, but owing to the lower interest rate, such a loan is more difficult to obtain.

During the late 1950's the tight money policy pursued by the monetary authorities made it increasingly difficult to obtain mortgage credit. Construction activity fell off in 1960, and the public became concerned about the consequences of the policy of high interest rates and tight money, which added to the cost of housing and at the same time restricted the supply. A moderate amount of relief was created by the activities of the Federal National Mortgage Association, a federal institution known as "Fannie Mae," which is authorized to buy mortgages. The Association provides assistance to the secondary market for mortgages by purchasing these from the original lenders and thus increases the liquidity for home mortgage investments.

To revolve the funds of the institutional mortgage lenders more speedily, the Federal Housing Administration, in 1960, authorized these to sell insured mortgages to individuals or financial institutions, thus further broadening the market for secondary mortgages. This did not constitute a break with the policy of limiting mortgage insurance to loans originally granted by institutional lenders. A change of this policy, making mortgage insurance available in the cases where the lender is a private individual, has often been suggested by competent students of housing.

Taxes and Other Current Expenses. Debt service, though the most important, is not the only item of which current expenses for shelter are composed. Interest and amortization may absorb 50 per cent of current outlay. Another 25 per cent is generally spent for taxes, while the rest goes into maintenance and insurance. Taxes differ from current expenses for debt service in important respects. They are payable long after the mortgage may have been paid off, and they are not reduced at the same rate at which the building depreciates. An owner who is free of debt may still lose his property if he fails to pay taxes.

Assessments usually fall short of the market value of the property, but on occasion they exceed it by considerable margins; and they are more likely to do this in the case of small than of large properties. Conditions, in this respect, vary greatly thoughout the country and often from locality to locality. The property tax is of great importance in municipal finance. Revenues from taxes on residential property are close to 50 per cent of total municipal tax revenues in the cities over 100,000 and one third of their total revenues. But the property tax does not fulfill the requirements of sound taxation as they have evolved in the science of public finance. Ownership of real property is no longer correlated with ability to pay; it has come to be supplemented and replaced by other forms of wealth, but these are less susceptible to the demands of the city treasuries. There is thus little hope for a relaxation of real property taxation.

TO OWN OR TO RENT

Many students of social life consider home ownership one of the outstanding characteristics of the American pattern. It is indeed an ideal that is unhesitatingly endorsed by the great majority of our people. When this view is supported by specific arguments, reference is usually made to the political and social values that are attached to the diffusion of home ownership and to the intangible, nonmonetary advantages and satisfactions which accrue to the owner of a home. But the question of whether home ownership is preferable to rental housing also on strictly economic grounds is more difficult to answer.

In 1959, 61 per cent of all occupied dwelling units in nonfarm areas were occupied by their owners. This proportion is higher than ever before.

While it is difficult to formulate a generally valid principle that would place an economic premium either on home ownership or on the use of rented facilities, much depends upon the time element. But before exploring this factor, we will enumerate certain distinctive features of modern home ownership.[4]

Characteristics of Home Ownership. Home owners enjoy certain tax privileges, but they are exposed to the effects of numerous adverse factors. The purchaser of a home may find himself inadequately protected should the premise prove less suitable and fit than he thought. The burden of mortgage debt may prove oppressive, resulting in foreclosure and personal liability of the owner. The hope for speculative gains from home ownership may prove elusive.

1. The acquisition of a home is under the rule of *caveat emptor*, a legal phrase meaning "let the buyer beware." Sellers generally assume only minimum guarantees of the fitness and suitability of the premises.

2. As mortgage credit has come to be granted for a very high proportion of the value of a house, the nature of the owner's equity has undergone profound modifications. He must meet substantial charges over a period of time that has become longer and longer as the amortization period was extended. The burden of long-term debt may tend to become oppressive if the initial commitment is very high. The longer the amortization period, the larger the accumulated interest payments.

If the family income is high for the time being, commitments are likely to be made that the owner may be unable to meet in less favorable times. If he were a tenant, he could then move to premises more suited to his financial circumstances. While those might not have been available during boom times, when the incomes of the poorest people advanced most rapidly, they are likely to become vacant in times of adverse business fluctuations. The owner's investment may prove immobile, and especially so during a depression. This not only deprives him of the opportunity to adjust his shelter expenses to changing income but may prevent him from utilizing job opportunities offered elsewhere.

3. The historical data on the foreclosure of homes amply illustrate that such apprehensions are not unfounded. More than one out of six owner-occupied nonfarm residences, their total counted in 1930, were foreclosed from 1926 to 1940. In some large cities the number of foreclosures over a twenty-year period varied between one third and one half of the total number of homes. Distress would have been still larger had not the federal government intervened and created the Home Owners Loan Corporation, an organization designed to save a considerable number of homes during the Great Depression.

However, the present situation is not as dangerous as might be thought

[4] To the following see Charles Abrams, *The Future of Housing* (New York: Harper & Bros., 1946), pp. 36 ff.

in view of the availability of mortgage credit for so large a portion of the price of a home. To be sure, the proportion of owner-occupied nonfarm dwellings that are mortgaged is high and rising, the figure coming close to 60 per cent in 1956, compared with 44 to 45 per cent in 1950 and 1940, and 40 per cent in 1920. But the average owner's equity in mortgaged homes was an estimated 48 per cent in 1956, as compared with 57 per cent in 1950, and thus has not fallen commensurately with the increase in debt. This favorable equity ratio in the face of low down payments largely reflects the rise in real estate prices since the forties. In an inflationary situation, it pays to buy on credit. Of course, if real estate prices were to fall, the situation would look much less favorable.

Another important consideration relates to the fact that practically all new mortgages are now fully subject to amortization. In the past, non-amortized mortgages were about as frequent as amortized ones. If there is no amortization and the whole mortage falls due at a certain time, the owner does not build up an equity in the home during the period of the mortgage. If the whole mortgage is carried until repayment falls due, and if it falls due in times of adverse business conditions, the consequences may indeed be as disastrous as they were during the thirties.

4. As has been noted, there exists a personal obligation of the debtor parallel to the interest in the property acquired by the mortgagee. If the home owner defaults on his obligation, the mortgagee may foreclose the house, recover all or part of his losses, and still hold the former owner liable for the balance of the debt. In the case of adverse business fluctuations, this arrangement may be tantamount to a serious threat to the credit and financial security of the person who purchased a home under more favorable conditions.

5. Sometimes the prospective purchaser is attracted by the expectation of speculative gains. He hopes the house will appreciate in value and that in the future he will be able to sell at a higher price. It is true that a good bargain, purchased when real estate prices were low, may be salable at a premium in the future, but the gains from such a transaction are elusive as long as the owner's need for shelter persists. If he sells at the higher price, he will have to obtain new facilities for himself; and these will then be available only at higher prices.

6. Resident owners enjoy a number of tax privileges, but it is doubtful whether they are valuable enough to offset the financial effects of home purchases made during unfavorable periods. A person who occupies his own home does not have to pay income tax on the imputed income derived from the services of the house. Thus, if a person invests his funds in stocks or bonds, dividends and interest payments are subject to the federal income tax; if he invests them in a home to live in it, no such tax is collected. When the home owner computes his taxable income, he may deduct real property

taxes and interest on mortgages. The tenant does not enjoy a corresponding privilege: rent is not a deductible expense.

In a number of states, home ownership and residential construction is encouraged through exemptions from property taxes. None of the great Eastern states grants such privileges; they are most prominent in the South. Legislation of this type is not altogether sound. It imposes an unduly large share of the cost of local government on the renting class whose ability to pay may be smaller than that of occupying owners.

Relevance of General Economic Conditions. The foregoing remarks all illustrate the simple truth that it is not always advisable to buy when prices are high. But as real estate prices have been rising virtually all the time in recent decades, people who would have decided to wait with the purchase of a home after World War II until the return of lower prices, would still be waiting. Moreover, periods of low prices generally coincide with periods of low incomes when few people are able and willing to acquire a home. The advice to buy at low prices thus is not one that can command universal respect; if everybody were in the position to buy at low prices, prices would not be low.

No wonder then that most people tend to build and buy homes during periods of boom and prosperity when incomes are high and jobs plentiful. This is exactly the time when the costs of acquiring a home are at their peak. If prices and incomes fall the burden of recurring fixed charges gradually becomes heavier. If the owner then wants to sell, he can do so only at a loss. If he hangs on to the property, current costs may be out of proportion to his income. If he defaults on his liability and the house is foreclosed, he not only loses the equity which he has acquired but is exposed to a personal obligation which may be with him for many years to come.

The relatively few people who acquire homes during a depression are in a better position. The purchase price reflects low real estate values and is unlikely to burden them during the future. But as few people are financially able to utilize such opportunities, much real estate falls into the hands of institutional lenders which acquire properties at foreclosure sales.

Moreover, during the immediate past the whole issue was an exclusively theoretical one because the three mild and short-lived postwar recessions did not offer opportunities to acquire real estate at bargain prices.

PUBLIC HOUSING

Development and Purpose. Since 1934, private residential construction has been supplemented by the construction of residential dwellings financed by public agencies. During the thirties, public housing was designed for

low-income groups. During the war the public construction program was modified to serve the needs of war workers. By now, large-scale public construction for low-income groups has for all practical purposes ceased. New programs have been incorporated in various bills but since public housing is a much contested political issue, annual appropriations have kept new construction to a minimum. The total number of low-rent public housing units completed during the period from 1935 to 1960 is about 450,000, less than 1 per cent of all dwelling units in existence. Construction in recent years has proceeded at the rate of 10,000 to 15,000 units, a mere token number.

Hence the volume of public construction was never large; although in 1943, when there was little private construction, it exceeded that of private construction. The first incentive to public housing had been supplied by the employment situation during the Great Depression. Public projects, it was believed, would absorb unemployed workers, lead to secondary employment and production via the multiplier, and provide housing facilities for those who needed them most. Under the law of public housing as it later developed, the Public Housing Administration was empowered to grant loans to local housing authorities for low-cost housing and slum clearance.

The costs of such loans are relatively low, since they carry interest only ½ per cent in excess of the rate at which the federal government can borrow money. The loans are to finance 90 per cent of the costs of the project. Responsibility for financing the remaining 10 per cent rests with the local housing authorities established in accordance with enabling state legislation. Their operations are further facilitated by federal and local subsidies. The federal subsidy consists of annual contributions amounting in effect to 2 to 3 per cent of the cost of the project. The local subsidy must be no less than one fifth of the federal one, but the municipalities have willingly granted a multiple of the requirement. Most commonly it is given in the form of a tax privilege exempting the project from local property taxes.

These features—low-interest credit and subsidization—account for the fact that rentals for the dwellings can be much reduced. They are made available to low-income families, increasingly also to aged people. The average monthly rental is less than $40 for facilities that in the market woud rent for over $100.

Objections to Public Housing. Public housing is a highly controversial matter. Some critics object to the tax exemption feature. Others doubt its lawful character. Still others deplore the burden on the federal taxpayer. Again others insist that its costs are excessive, that its benefits are not limited to the poor, and that it is unjustified to build new quarters for low-income groups while other must be satisfied with old structures. We will take up these criticisms in detail.

1. It is said that the tax exemption feature affects local finances adversely and necessitates the imposition of a higher burden on properties that are not exempt. But in lieu of taxes the city is entitled to a service charge of 10 per cent of the shelter rent (total rent minus utility charges), and the elimination of slum areas and the ensuing rehabilitation of their inhabitants benefits local finances in a roundabout but nevertheless effective manner.

Moreover the opponents of public housing often insist upon comparison with tax revenues that could be levied if the newly installed projects were not exempt. The relevant comparison is, however, with the revenues received in the past from the eliminated slum area. On the basis of these considerations, tax exemptions are unlikely to reduce unduly the municipal revenues so long as they apply only to small portions of the dwellings within the municipal orbit.

2. The legality of public housing projects has been upheld by the courts of 29 states and by the Supreme Court.[5] The legal issues raised by public housing hinge on the question of whether or not the assumption by the government of this function, requiring, as it does, the expenditure of public funds, is intended to serve a "public purpose." In effect the courts have taken the view that government activities serve a public purpose if the public clearly insists that the government assume them.[6]

3. The costs of the projects to the federal taxpayer do not seem excessive. As has been noted, the federal contribution is no more than 2 to 3 per cent of the cost of the projects. Apart from the subsidy, federal participation is beneficial because the loans to the local housing authorities can be financed from the proceeds of bonds issued by the Public Housing Administration. As these are government-guaranteed, they can be placed at the relatively low rate of interest enjoyed by the government.

4. While the average income of all families living in public housing projects is less than $3,000, the progressive nature of our economy is responsible for the fact that, as the time goes by, there are always some tenants whose income has risen to an extent that would make them ineligible as new occupants of public housing. This phenomenon is especially pronounced during periods of prosperity. It calls for administrative procedures designed to facilitate the eventual removal of tenants capable of affording regular housing facilities but is no argument against public housing. Even during periods of prosperity the demand for public housing facilities is far in excess of the supply.

5. Another criticism occasionally levied against public housing is based on alleged excesses in the cost of public construction. This is usually

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[5] *Federal Public Housing Authority* v. *Guckenberger*, 323 U.S. 329 (1944). In the state of Ohio, however, the grant of tax exemption to the local housing authority was held unconstitutional.

[6] Myres S. McDougal and Addison A. Mueller, "Public Purpose in Public Housing," *Yale Law Journal*, Vol. LII (1942), pp. 42-73.

formulated in a general way, with emphasis on the ability of private enterprise to accomplish things at lower cost than the government. Specific comparisons of private and public construction costs have generally been inconclusive; the few that are conclusive indicate that public projects cost no more than comparable private ones.[7]

6. Some critics of public housing find fault with the fact that it enables poor people to move into new quarters while the receivers of higher, though still moderate, incomes must be satisfied with old premises. There is something to be said in support of this view, but it is an argument that should encourage aid to the middle-income groups rather than discourage public housing for the low-income groups. Important also is the observation that second-hand housing facilities, if they are decent, are beyond the means of the people for whom public projects are intended. "The hand-me-down theory works, but it works to provide indecent housing for those who get it on the last hand-down."[8]

Alternatives to Public Housing. It may well be that in the future arrangements will be formulated that are more attractive than the public housing program outlined in the preceding pages. The alternative proposals which thus far have been submitted are of doubtful value, however. It would obviously be impractical to subsidize the needy directly to enable them to become home owners. As multifamily dwellings entail enormous economies, one might think of promoting their construction, by private parties, through public subsidization in one form or other. Some have proposed to grant to low-income receivers rent certificates which supplement their cash payments for rentals. But the practical value of this proposal is small. Local welfare agencies for long have subsidized the rents of their clients, but this has not been productive of the needed additional construction. It is unlikely that suitable private investment could be promoted by the chance that tenants in the future might obtain such certificates.

Others would stimulate low-cost housing by subsidizing the investor rather than the tenant. But this would entail regulation of construction as well as of rental agreements and would, in effect, make the investor an agent of the government.

Thus there is no suitable alternative to public housing at hand. The volume of new housing that becomes available at low rentals is altogether inadequate. Public housing has come to be endorsed widely. Its supporters include many persons of conservative views.

[7] Nathan Straus, *The Seven Myths of Housing* (New York: Alfred A. Knopf, Inc., 1944), pp. 94–126; Abrams, *op. cit.*, pp. 274–76; Robert Lasch, *Breaking the Building Blockade* (Chicago: University of Chicago Press, 1946), pp. 192–200.

[8] *Housing*, Hearings before Senate Banking Committee (80th Cong., 1st sess.), on S. 287 etc., (Washington, D.C.: U.S. Government Printing Office, 1947), p. 51.

URBAN RENEWAL AND SLUM CLEARANCE

The inadequacy of the public housing program has done much to weaken the effectiveness of the federal program of slum clearance and urban renewal, which has been under way since 1949. A slum is a cluster of substandard dwellings. In 1950, 16 million dwellings, more than a third, were so classified because they were found dilapidated or lacking sanitary facilities. Ten years later the proportion of substandard dwellings had fallen to an estimated quarter.

In 1960 work had been completed on 26 federally supported projects covering 365 acres. For purposes of comparison it is interesting to note that the slum areas of New York City alone extend over some 7,000 acres. However, the program is an expanding one, and some 300 projects were on their way by 1960.

In a number of places the accomplishments which urban renewal programs have brought about are impressive. To mention only a few—the Penn Center in Philadelphia, which replaced the ugly railroad tracks next to the City Hall; the renovation of Pittsburgh's "Golden Triangle"; the rebuilding of the entire southwest area in the nation's Capital.

Under the principal federal program, the federal government helps the cities to clear their slums and sell the land at reduced prices to private developers.[9] These have often replaced the slum area with shopping centers and high-rent apartment houses, a development which greatly improved the neighborhood but failed to provide the displaced slumdwellers with adequate facilities to move in. With the Public Housing program reduced to a level where it can receive only a few of these people, they often crowd available housing facilities a short distance away from their old ones and turn the adjacent area into a new slum.

The movement of population and of shopping centers to the suburbs has made urban renewal a still more urgent problem. Under the leadership of the American Council to Improve Our Neighborhoods, known as ACTION, local groups have sprung up in many localities that explore new ways to arrest the decline of the cities and press for the vigorous pursuit of renewal projects.

THE MOVEMENT TO THE SUBURBS

In 1960, over 53 million people resided in the outlying parts of the

[9] For descriptive material on the various programs, see pamphlets and leaflets published by the Housing and Home Finance Agency, Washington, D.C., such as *Aids to Your Community*, 1958; *Urban Renewal, What It Is*, 1959; *Urban Renewal Administration: A Brief Background*, 1959; *Relocation Housing*, 1959; *The Workable Program: A Plan of Action for the Renewal of a Community by the Community*, 1960; *The Urban Planning Assistance Program*, 1960; *Urban Renewal Housing Mortgages: FNMA Special Assistance Program*, 1960.

metropolitan areas of the United States, 17 million more than in 1950 (see Fig. 40). Indeed, nearly two thirds of the total population increase of the 1950's occurred in the parts of the metropolitan areas which are outside the central cities, that is, in the suburbs. During the 1950's the suburban population increased by 47 per cent. This compared with an 18 per cent increase of the total population of the United States, and an increase of 8 per cent both for the central cities and for regions outside of the metropolitan areas.[10]

Distribution of Population in Standard Metropolitan Areas between Central Cities and Surrounding Areas

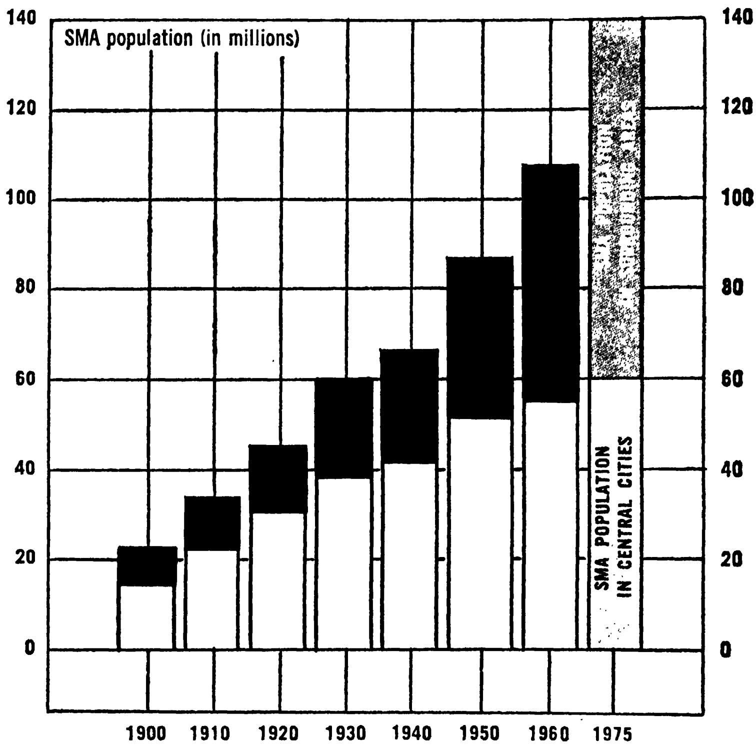

FIG. 40. The increase in the population living in the areas surrounding the central cities in the standard metropolitan areas reflects the movement to the suburbs. From Committee for Economic Development, *Guiding Metropolitan Growth*, 1960, p. 8.

Within half a century the United States population has been transformed first from a predominantly rural into an urban one, and now this is rapidly becoming a suburban one. It was not until the census of 1920 that

[10] A metropolitan area is a county or a group of counties which contains at least one city of 50,000 inhabitants or more. There are close to 200 such metropolitan areas in the country.

the urban population exceeded the rural one. As of 1960, the size of the urban population now no longer exceeds by a substantial margin the suburban one (56 versus 53 million, as compared with 51 versus 36 million in 1950).

While the over-all population of the 225 central cities in the metropolitan areas shows an increase of 8 per cent from 1950 to 1960, 72 of these cities lost population, including four of the five cities of 1 million or more population. Of these, the only gainer was Los Angeles. If there is a loss in population, the city loses state aid that is calculated in per capita terms. New York City, for example, lost some 2-300,000 people from 1950 to 1960 according to the preliminary census count. With state aid amounting to $6.75 per head a year, the city is likely to forego $1½ million state aid. People continue to earn their money in the central cities but much of it is spent in the suburbs, where they live. To take again the example of New York City, where the development can be illustrated by figures: In 1939 70 per cent of the wages of the residents of the New York Metropolitan Area comprising 22 counties was generated in the city of New York, and 65 per cent was spent there. In 1956, New York City still generated 62 per cent of the wages, but it retained only 49 per cent.[11] Moreover, it is especially the financially strong income groups that tend to move to the suburbs, whereas the clients of the various urban welfare organizations are likely to remain in the central cities. In addition, the latter remain burdened with the heavy expenses for urban renewal, which only in part are shared by the state and federal governments. All in all, the movement to the suburbs diminishes the revenue-earning capacity of the central cities but it does little to reduce their expenses.

Suburban growth is a cause as well as an effect of the decay of many central cities. In many respects it aggravates the conditions from which people try to escape. City taxes are high, but the suburban ones are bound to rise as the newcomers require schools and other municipal services. The Governor of California estimates that the settlement of a new family in a California city requires a public outlay of capital of $13,000 for schools, streets, sanitation, sewage, and other purposes.[12] It takes many years until such a sum is recovered in the form of taxes. Others have estimated that $1 spent for residential construction calls for the disbursement of 50 cents for other construction, private and public, to provide residential services such as schools, stores, utilities, hospitals, recreational facilities, places of worship, and local streets.[13] The suburban movement thus has a leverage effect on construction over and above that represented by the homes of the new

[11] Martin Segal, *Wages in the Metropolis* (Cambridge: Harvard University Press, 1960).

[12] Address before the United States Conference of Mayors, Los Angeles, July 14, 1959.

[13] Leo Grebler, "The Role of Residential Capital Formation in Postwar Business Cycles," Conference on Savings and Residential Financing, *Proceedings*, 1959, p. 64.

dwellers. This is illustrated by the sprawling shopping centers in many suburbs, which do a volume of business that rivals that of the old, established merchandising facilities in the central cities.

People move to the suburbs to seek relief from the traffic congestion of the central cities. But the commuting trip to the places of business by car is becoming a less and less pleasant experience in many communities. To accommodate the increased flow of motor traffic, new approaches to the central city—expressways and superhighways—are constructed. These in turn often reduce the property values in the neighborhood, and they are ungainly sights whose effects add to urban decay. Once the commuters have arrived in the central city and parked their cars, few parking places are left for shoppers and transients.

Meanwhile urban transit lines and the commuter railroads find themselves under financial pressure (see p. 440); but as they are much more efficient in moving large numbers of people than is travel by car, many communities no longer wish to rely on additional superhighways and expressways but rather want to divert the motor traffic of the commuters to subways, railroads, and monorails.

It is difficult to resolve the problems posed by the growth of the suburbs without effective co-operation of the various local governments of the metropolitan area. These often want to retain their respective prerogatives and functions, but a reorganization is indispensable to achieve integration and co-ordination of their policies.

SUMMARY

The demand for housing reflects the formation of new households as well as the need for replacement of existing facilities. The supply of new residential construction is subject to violent fluctuations. There was little house building during the depression years of the thirties and during the war period of the forties.

The cost of construction is high because of the persistence of antiquated methods of production and monopolistic practices of labor and suppliers of materials. While the cost of items used in house building has increased at a faster rate than general prices, the use of mass-production methods as practiced by some builders has reduced housing costs.

Carrying charges for shelter include amortization of construction cost. But as an increasing proportion of this cost can be borrowed, a substantial part of carrying charges is for interest. Federal insurance of mortgage credit has been instrumental in raising this portion as well as in extending the length of the amortization period, but the cost of such credit has been raised to a relatively high level.

Home ownership has assumed record proportions and so has mortgage debt, but rising real estate prices have helped to maintain the owners' equities.

Little is currently being done in the field of public construction of low-cost rental housing for low-income groups, a field promoted by the federal government since 1934. The cost of shelter provided in this manner is low, because federal credit, available at relatively low interest rates, replaces mortgage credit of the ordinary variety. In addition, there are federal and local subsidies to such housing.

The inadequacy of the public housing program has done much to weaken the effectiveness of the federal program of slum clearance and urban renewal, which has been under way since 1949. Such a program is indispendable to stem the decay of many central cities, whose rate of growth is far below that of the suburban communities. The movement to the suburbs poses new problems in the field of transportation and government finance.

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Similar studies are being undertaken for other metropolitan areas; see, for example, Ezra Solomon and Zarko G. Bilbija, *Metropolitan Chicago*, Glencoe, Ill., Free Press, 1960, and a forthcoming study of the Pittsburgh area.

STUDY QUESTIONS

1. How would you go about calculating the demand for housing?
2. How is the demand for housing related to family formation?
3. In what sense is the construction industry a "key" industry?
4. What is the present annual rate of nonfarm dwelling units started? (Consult *Survey of Current Business*.)
5. What is meant by the building cycle?
6. What factors account for the rapid rise of the price of unimproved land in recent years?
7. What do the indexes of construction cost measure?
8. What are some indications of technological progress in housing construction?
9. What have been the accomplishments of the program of mortgage insurance by the Federal Housing Administration?
10. Why is it desirable to have an active secondary market for mortgages?
11. What is usually the relation between the assessed value of a home and its market value?
12. From a strictly economic point of view, is it more advantageous to own or to rent?
13. Why are so many dwelling units in the United States occupied by their owners?
14. Does the extent of mortgage debt give cause for alarm?
15. What is the meaning and purpose of public housing?
16. What public housing programs are there in your home state?
17. What urban renewal programs are there in your home state?
18. What is meant by a slum area?
19. What are some problems raised by the movement to the suburbs?
20. Approximately how many people live in suburbs?

Chapter 14 INVESTMENTS: PROBLEMS OF INDIVIDUAL FINANCIAL MANAGEMENT

In the preceding chapters, two important ways of disposing of one's liquid funds have been discussed: life insurance and home ownership. In this chapter, we will round out the survey of an individual's financial problems. They can be classified into two broad groups of transactions: the purchase of securities; and the sale of one's own securities for money, a transaction that more commonly is called "borrowing." We will discuss first the purchase of securities and then borrowing.

THE PURCHASE OF SECURITIES

Real investment has been distinguished from financial investment. The former means the use of productive factors for additions to the stock of real capital (buildings, machines, inventory, etc.). The latter means the use of liquid funds for the purchase of securities or other claims to tangible or intangible assets (see Fig. 41).

If an individual uses his liquid funds for the acquisition or expansion of his own business, one speaks of direct investment. Direct investment is real investment to the extent to which new capital is being constructed. It is financial investment to the extent to which existing capital goods are acquired.

The following discussion will be chiefly concerned with financial types of investment. These occur, in the first place, through purchases of securities. Securities are certificates of ownership, or stocks, and certificates of indebtedness, or bonds.

The successful arrangement of an individual's financial affairs is an art which requires much training in the hard school of experience.

SAVINGS, SHARES AND INVESTMENTS, SELECTED MEDIA, DECEMBER 31, 1950–59

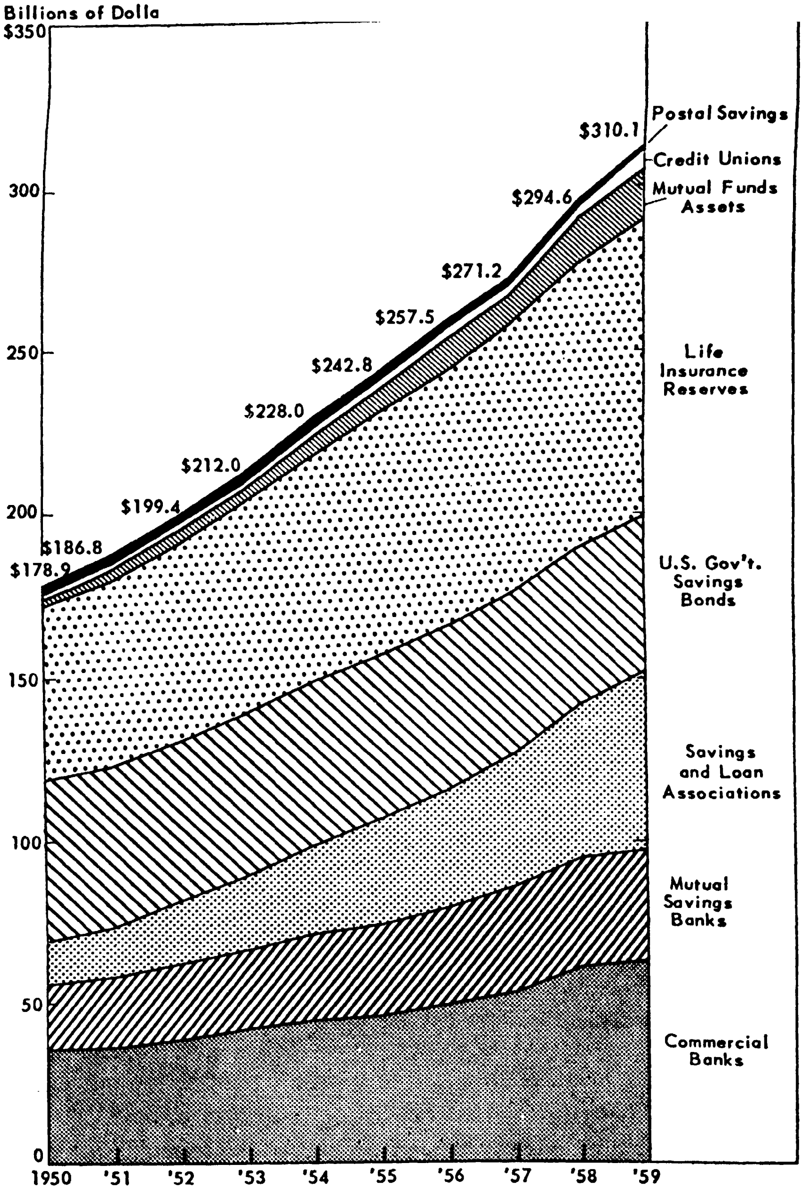

FIG. 41. Note the different behavior of the various savings media. Postal savings and U.S. government savings bonds have declined. All others have increased, with the mutual funds assets, credit unions, and savings and loan associations growing fastest. Source: Federal Home Loan Bank Board, National Association of Investment Companies. From American Bankers Association, *Statistics on the Savings Market*, 1960, p. 4.

Book knowledge is helpful to the extent to which it may illuminate techniques and mechanisms that are typical in the investment field. At its best, it may provide a few general rules and principles of use to the practitioner.

Return and Liquidity of Investments. Investments differ by their returns and by their liquidity. Depending upon the specific purpose which the individual investor has in mind, he will attach greater significance to either the one or the other of the two factors. Return and liquidity are usually related in the sense that more highly liquid investments yield lower returns.

By "liquidity" we mean, in this context, the ease with which an asset can be exchanged for money, the most liquid of all assets. Next to cash, demand deposits with commercial banks are most liquid. They can be withdrawn at any time and can easily be transferred from one person to the other by means of checks. But bank deposits, as everybody knows, carry as little interest as does money; contrariwise, if the amount that is deposited falls below a specified minimum, or if the number of transactions is excessive, the bank will require the payment of a fee. Savings deposits are a bit less liquid than demand deposits, because notice may be required before substantial amounts can be withdrawn. Correspondingly the depositor receives a remuneration in the form of interest. In conformity with other interest rates, rates of interest on savings deposits have been raised during the 1950's and were around 3 per cent in 1960. No checking service is provided. The bank's right to demand advance notice is rarely exercised and serves primarily as an incentive to stability.

Deposits up to $10,000 are insured with the Federal Deposit Insurance Corporation if the bank is a national bank or if it is a state bank which is a member of the Federal Reserve System. Depositors, to the indicated extent, thus incur no risks; and the return they receive, in the form of checking services or interest, is in the nature of a reward for overcoming the desire to hold funds in a still more liquid condition. But under the described circumstances, this desire must be very weak. Since it is not safe to keep cash at home, people would maintain deposits even if they had to pay fees for this or would receive a lower return on savings deposits than they actually do.

A somewhat higher return can often be obtained on share accounts with building and loan or savings and loan associations, which are owned by the holders of such accounts and distribute their profits among them. An insurance system similar to that for national banks is provided for these organizations, but withdrawals often cannot be made as freely as in the case of savings banks. Credit unions, that is, co-operatives of employees with a common bond for the purpose of granting loans to their members, also provide a means to obtain returns on small amounts of cash. The supervision of many of these organizations by federal authorities generally protects shareholders against losses.

The federal government issues nontransferable savings bonds—Series

E—in denominations as low as $25. They are sold at a discount—at $18.75 in the case of the $25 bond—and mature in seven years and nine months; the difference between sales price and maturity value reflects a yield of 3¾ per cent. This yield, however, is realized only if the bond is held until maturity. If it is surrendered earlier, the cash value is calculated on the basis of a substantially lower yield. For a period of sixty days after purchase the bond is not redeemable at all.

Another savings bond—Series H—is of the "current income" variety, paying interest semiannually. This bond is priced at par and redeemable at par after at least six months. Like the Series E bond, this one matures after seven years and nine months; and the rate of interest is 3¾ per cent if the bond is held to maturity. The smallest denomination in which Series H bonds are issued is $500. Neither bond is negotiable nor can be used as collateral. (There are, of course, many other government bonds outstanding; Series E and H represent little more than about 15 per cent of the total.)

The amount of the interest rate is of great significance if investments are held over considerable periods of time or if the principal is large. An easy rule that enables the investor to find the number of years in which a given amount will double at compound interest, can be formulated as follows: Divide 70 by the interest rate, and you obtain the number of years. Thus, at 1 per cent the principal will double in 70 years, at 10 per cent in 7 years, at 5 per cent in 14 years, and so on.

Fluctuations in Market Value. The preceding types of securities have all the important characteristics of stability; that is, they are not subject to fluctuating market values. Such fluctuations are unavoidable when transferable securities are purchased that are redeemable only after the passage of a certain length of time. The transferability during this period ensures liquidity but does so at the cost of fluctuations in value. The receipt of the full face value presupposes ability of the holder to wait until maturity. The markets at which, in the meantime, he can dispose of the security are called securities exchanges. In the purchase and sale of such securities, costs are incurred, consisting of brokerage fees and taxes.

Fluctuations of the market prices of bonds arise from two causes. First, people may become doubtful about the ability of the specific debtor to make payment when it becomes due. This generally is no important factor in the cases of government bonds or high-grade private bonds. The second cause operates as the result of changes in interest rates. If the rate paid on newly issued securities is higher than that for similar issues of the past, the market value of the latter will depreciate, becaue the reaction of purchasers will be such as to cause an equation of the effective yields of both investments. The yield of the old, low-interest bearing security rises as its price falls.

The market situation for government bonds has been discussed on page

170, in conjunction with the control of inflation. As interest rates have moved upward, bond prices have fallen. New federal bonds are usually issued at such rates that will secure their absorption by the market at par. Consequently, their coupon rates of interest vary considerably. Bonds offered in 1922 carry a rate of 4¼ per cent; those issued in 1942 pay only 1¾ per cent; another issue, of 1953, pays 3¼ per cent; again another one, of 1959, 4 per cent.

During periods of high bond prices the span between the prices of bonds of different grades all but disappears. Medium-grade and low-grade bonds are "cheap" only when they sell considerably below high-grade bonds. This they tend to do when the prices of all bonds are depressed.

The Stock Market. Recent investigations have confirmed the broad observation that investments in assets of unchanging money values—bonds—are preferred by lower-income groups, whereas assets of fluctuating money value—common stocks and real estate—are more readily acquired by higher-income groups. Stocks, unlike bonds, do not mature. Unless the corporation is liquidated, their value can be realized exclusively at the market. An investment in stocks usually earns a higher return than one in bonds (see Fig. 42). This rule, however, has failed to apply during the recent past, when stock prices rose vigorously, lowering the yield on the investment, while bond prices fell in consequence of rising interest rates.

In the past, the higher yield of stocks as compared with that of bonds was usually interpreted as an indication of the greater risk presumably involved in the purchase of shares of stock. Stocks thus commanded an excess yield not available to the purchaser of a less risky bond investment. He, in turn, was willing to forego the differential because of the greater safety of his investment.

In the reversed situation, when bonds yield more than stocks, it is the stockholder who foregoes a differential return. What are the reasons that induce him to accept a lesser return? He may be aware of the drastic fall in bond prices that has occurred in recent years, and the fear of a continuation of this trend may keep him away from bonds. Moreover, he may project into the future the past trend of stock prices, making him hope for appreciation of his capital. Third, while the interest rate of the bond is fixed, there may be expectation of an increase in the dividend payable on the stock. Fourth, the purchaser of the stock not only receives dividends but the value of his equity increases as a part of the corporate earnings is retained in the business. This is important for reasons of tax economy since the personal income tax on interest or dividends is higher than that on capital gains. Fifth, as companies have grown large and powerful, the risk of failure is considered less than it was in the past. Industries have stabilized their earnings. Business depressions, at least those which occurred since the war, have become milder, and the government is under duty to promote prosperity. If considerations such as these are reinforced by an inflationary

STOCK AND BOND YIELDS

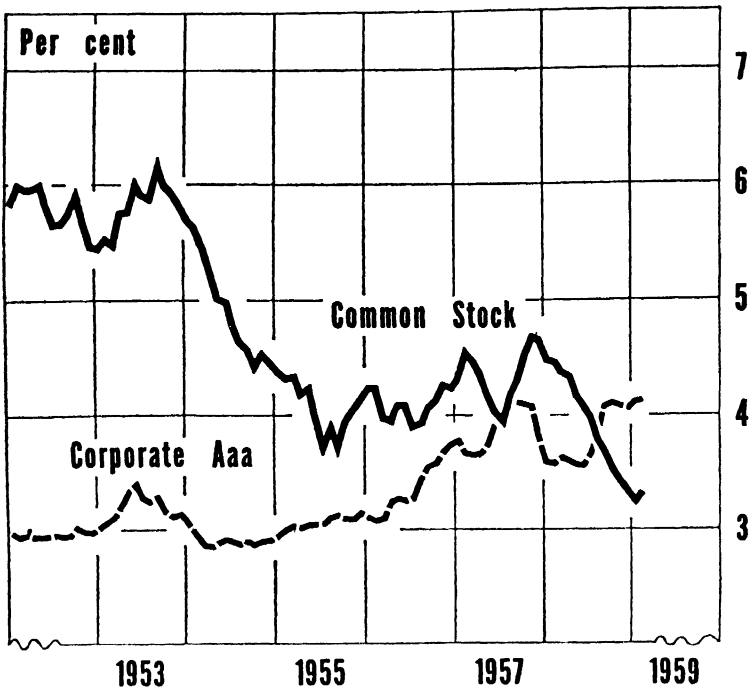

FIG. 42. Usually the yield of common stocks is higher than that of corporate bonds, but during the late 1950's the relationship was reversed. Source: Federal Reserve Board. From Antitrust and Monopoly Subcommittee of the Senate Judiciary Committee, *Hearings*, March 10, 1959.

situation, it is easy to see why stock prices are so high relative to bond prices that stocks yield less than bonds.

However, if the public's preference for stocks abates, their prices may fall and their yield increase correspondingly, while bond prices may rise and their yields decline in turn. After many years during which the public showed little interest in the acquisition of government bonds, the purchases of government securities—state, federal, and local—by individuals amounted to over $10 billion in 1959, a sum that was equaled only by the purchase of such securities during the war period. When the Treasury in October, 1959, offered its "magic five"—5 per cent, four-year, ten-months notes—many small investors responded by withdrawing cash from savings banks in order to acquire the security yielding so high a return. Again, when the Treasury in January, 1960, held an auction of $1.5 billion of one-year bills that were expected to yield 5 per cent interest or more, one third of this was purchased by many thousands of small investors. As one observer had it, "the public discovered the U.S. Treasury bill market," a market that is normally the preserve of professional investors. It is unlikely, however,

that these purchases were financed from the proceeds of sales of stock. Instead, they represented a shift out of savings bank deposits and similar investments of lower yield into debt securities of higher yield. Nevertheless, the return of 5 per cent brought into sharp relief the unusual differential between bond and stock yields, the latter then being in the neighborhood of 3.3 per cent.

While there are many types of stocks the broadest classification is that of common and preferred stock. Preferred stocks have a claim to dividends ahead of the common variety. They thus resemble bonds in certain respects, following the movements of these but fluctuating more widely. An investor who is interested principally in certain returns will find low-grade preferred stock unattractive.

When capital appreciation is desired, common stocks are more suitable than preferred stocks. An investment that is undertaken with the view of making capital gains rather than of receiving returns is called "speculation." The speculative character of an investment is often not easily ascertained; in many instances the investor himself is not certain in his mind whether he aims primarily at returns or at capital gain. A cynic has defined investment as successful speculation. Speculation always involves an element of gambling, though it is often cloaked in the more respectable garb of "inside knowledge." Investment in stocks is always risky. "Any fool can buy bonds, but few do." The prices of stocks, including even those of high grade, fluctuate widely. High-grade stocks fell by over 50 per cent during the Great Depression, by 30 per cent in 1937, and by 40 per cent during the early forties. Lower-grade stocks are subject to still wider fluctuations. They fell by 90 per cent during the Great Depression and by over 50 per cent in 1937.

Most people who buy stocks are motivated by the hope for capital gains. Merrill, Lynch, Pierce, Fenner & Smith, Inc., the world's largest brokerage house, which has close to 500,000 customers, has made a poll which was published in its *Annual Report* for 1959 and which revealed that 65 per cent of its customers put "capital gains" as their investment aim, followed by 25 per cent primarily interested in safety of capital, and 10 per cent in a liberal income.

What are high-grade stocks? The most acceptable definition would perhaps set up as criterion the stability of earnings over reasonably long periods of time. But the prices of common stocks, including those of high grade, are much influenced by the general business situation and by people's expectations of future developments. Since the behavior of stock prices shows little rationality, opportunities for prediction are limited. Fundamentally, people who buy for appreciation do so because they want to invest in a growth situation or because they hope other people will want to buy the same stock in the future, an activity that, not entirely without justification, has been compared with the placement of bets about whom the public will

elect beauty queen. But nevertheless great gains have been made as a result of judicious speculation.

The proper timing of the transaction and the selection of the right security are the two factors that account for success or failure of the venture. In general the stock market movement, be it upward or downward, affects the great majority of all stocks in the sense that they move in the same direction. When a general upward movement has set in, it would be a manifestation of especially bad luck if a specific security should fail to appreciate. On the other hand, in the presence of a general downward movement, it would be unusual if a specific stock should not participate in the trend. In considering when to buy and sell, many people place reliance on the so-called "inertia" of the stock market. If the market has been bearish or bullish for, say, a month, the probability is greater that the movement will continue than that there will be a reversal. This means that it is of advantage to swim with the tide, buying at turning points when prices for a month averaged higher and selling after they have averaged lower. While the turn of the tide cannot be predicted with certainty, there are various devices for recognizing this event after it has happened.[1]

A systematic method of timing purchases or sales has been developed under the so-called "formula plans," which have become popular in recent years. Under these plans the law of averages and a predetermined formula replace individual judgment as to the timeliness of purchases or sales of securities. There are a large number of varieties of such plans. Under the simplest, known as "constant dollar fund," a constant amount of dollars is held in securities, with sales being transacted when the value of the portfolio exceeds this amount and with purchases being made when the value of the portfolio falls short of it. When a fund is to be built up through new accumulations of cash, another plan, known as "dollar averaging," is more practical. Here purchases of securities are made by investing equal amounts of money at regular, predetermined intervals. Under a third program, known as "constant bond-stock ratio," "equalizing plan," or "Yale plan"—because it is used by the managers of the endowment fund of Yale University—a certain percentage of the fund, say 60 per cent, is to be held in stocks and the rest in bonds. Whenever stock prices rise and the actual proportion of stocks in the fund exceeds the planned one, stock is sold; when stock prices fall and the actual proportion is less than the planned one, stock is bought. Under still another formula, the "variable ratio" plan, the ratio of stocks to bonds is not held constant but is varied in accordance with changes in the average level of stock prices.

The application of the method of averaging is now facilitated by the

[1] A study of the record of various financial services indicates that the one with the best showing applied the principles set forth in the text. See Alfred Cowles, "Stock Market Forecasting," *Econometrica*, Vol. XII, No. 3–4 (July–October, 1944), pp. 206–14.

Monthly Investment Plan, inaugurated by leading members of the New York Stock Exchange in 1954. This plan makes it possible to acquire stock, if necessary in fractional amounts, by means of regular purchases for as little as $40 per month.

The proper timing of purchases and sales is of paramount importance. This factor is neglected when exclusive attention is paid to the selection of the specific stock to be bought. In general, it is advisable to hold a diversified portfolio. But if the principle of diversification is driven too far, negligence and the assumption of bad risks is invited. Brokers, bankers, and investment counselors are at hand with information concerning specific securities. Such information should include the range of prices at which the security was traded during past years, the earnings of the concern in relation to fixed and other charges, past dividend policies, and the prospects of the industry of which the corporation is a part. But the importance of proper timing makes a more comprehensive analysis of the general business situation imperative. Important also, though difficult to ascertain, is whether at a given moment the price level is high or low. Sometimes the behavior of low-grade stocks or bonds is a meaningful symptom. If the span between their prices and those of high-grade securities is narrow, the price level may be considered high and a purchase may seem unwarranted. If the span is wide, this may indicate opportunities for appreciation of lower-grade securities.

Many investors desire diversification as well as professional management of their holdings of securities. These requirements can be met by ownership of shares in investment companies, whose assets consist of holdings of securities. Often these companies also apply one of the formula plans for timing, which have been discussed above. Investment companies are of the "open end," "mutual fund" variety, and of the "closed end," "specialized" variety. Shares of the latter are listed at the stock exchanges or traded over the counter like other corporate stock. Shares of the mutual funds, on the other hand, are issued whenever somebody desires to purchase them, at a price equal to the prorated market value of the portfolio holdings of the company. The purchaser can redeem his share of the mutual fund at any time, again at the prorated market value of the company's holdings. Mutual funds are suitable only for long-term investments, since a fairly high loading charge—about 8 per cent—is payable when the purchase is made.

Mutual funds have been is existence for approximately 35 years in the United States. They were highly popular during the late twenties and have again become so in recent years. Their assets have risen from less than $½ billion in 1940 to over $16 billion in 1959. The assets of the closed end companies are approximately $1.7 billion. The number of shareholders of both types of investment companies is more than 2 million. Some of the companies specialize in certain types of securities—utilities, chemicals, Canadian stocks, etc. Some mutual funds have programs for multiple-

payment savings, say of an initial minimum of $300 and of a monthly minimum of $50 thereafter. This facilitates both saving and dollar averaging. The annual expenses of the mutual companies usually are less than 1 per cent of the assets, and the return to the shareholder is reduced accordingly.

Understanding the Financial Page. Current information on the securities markets can be found in the financial pages of the great daily papers. For more comprehensive statistical data, special services are available from Moody, Poor, and other firms. Some enterprises specialize in the interpretation of such data for the use of forecasts. However, the over-all record of the various financial publications and services which make stock market predictions does not invite much confidence. Their most common defect is their bullish bias when bearishness is called for. The public apparently is more eager to pay for optimistic interpretation of the market and the services act accordingly. On the average, even the record of the best forecaster is not impressive. During the long period from 1903 to 1940, average results of the service which did better than any other were only 3.3 per cent superior per year to those that could have been secured by a continuous investment in the thirty representative industrial stocks which go into the daily computed Dow-Jones average.[2]

To illustrate and explain the information supplied in the financial pages of the daily newspapers, there are reproduced below the daily reports of the *New York Times* on various kinds of stock and bond transactions at the New York Stock Exchange.

Range, 1960		Stock and Div'd in Dollars	Sls. 100s	First	High	Net Chge.
High	Low					
69½	52¾	Abbott Lab 1.80a	17	65½	65½	

This report of transactions in the designated stock (on June 24, 1960) refers to the following items: (1) The range of prices that has prevailed in a given year up to the day for which the information is given. (2) Next follows the name of the corporation: Abbott Laboratories. (3) After the name the dividend is indicated on an annual basis. The letter *a* refers to the fact that a special or extra dividend is included in the $1.80. (4) The volume of sales for the day is given in units of trading, which generally are set at 100 shares. (5) The prices for the day are then given, first the opening price, then the high and low, and finally the last price at which the stock sold before the close of the market. (6) The net change in price concludes the information. It is not calculated in terms of the opening and closing prices of the day, but indicates the difference between the closing price of the day and that of the previous session, generally of the day before.

[2] *Ibid.*

Bond trading on the New York Stock Exchange is reported in the following manner:

U.S. GOVERNMENT BONDS

Outstanding Millions	Rates	Maturities	Bid	Asked	Change in Bid	Yield
2.816	2½s	1968–63 Dec......	88.20	88.28	–.4	4.06

DOMESTIC BONDS

RANGE, 1960		Bond	Sales in $1,000	High	Low	Last	Net Chge.
High	Low						
73¾	69½	Am. T & T 2⅝s 86...	15	72	71½	72	+½

Bonds are identified by the name of the issuer, the coupon rate, and the maturity. The unit of trading for all bonds, government and other, is a $1,000 bond. In the quotation of the price, the last digit is omitted. Stocks and bonds are quoted in terms of eighths of a point (73⅛, 73¼, 73⅜, etc.), but in the case of government bonds the spread is not ⅛ but 1/32. A quotation of 88.20 as in our example thus indicates that a $1,000 bond is priced at $886.40 = $880 + (20 × 32 cents). Government bonds are quoted in terms of bid and asked prices. A bid price is an offer to buy; and an asked price, one to sell. There are transactions in government bonds at the Stock Exchange itself, but the bulk of such trading occurs in the so-called "over-the-counter" market, by means of informal negotiations, chiefly over the telephone, between dealers. The remainder of the information is self-explanatory in the light of the interpretation of stock reporting.

The financial pages of the great dailies contain many other helpful data, such as the daily volume of trading and daily averages of stock prices, information on new issues, bond yields, maturities, foreign markets, out-of-town exchanges, and the principal commodity markets.

Selling Short. The bulk of the people who transact business at the stock exchanges do so because they expect the prices of securities to rise. There are those, on the other hand, who wish to gain from anticipated reductions in prices. The number of these is never very large, perhaps because of the somewhat complicated character of the transactions involved; or because the potentially unlimited gain which an upward movement may produce kindles the spirit of enterprise more powerfully than the chance of a gain, always limited as it is in the case of a downward movement. When people want to profit from anticipated price falls, they must now sell what they have not, at present prices. As the seller is short of the security of which delivery is promised, the transaction is referred to as a short sale.

Under the regulations of the Securities and Exchange Commission, short

sales cannot be executed at a price lower than that which prevailed at the last regular sale; and if this price reflected a downward movement, the short sale must be transacted at a price higher than the last regular one. These restrictions are designed to prevent "bear riding," a depression of the market produced by short sales. Deliveries on short sales must be made instantaneously. This is made possible by borrowing from a broker the security which is sold short. The broker receives the full market price of the stock. Depending upon the circumstances, he may have to pay interest on the cash, or receive a premium, or do the transaction on a "flat" basis. If the stock now falls in price the speculator or "bear" will "cover," that is, purchase the stock, return it to the broker, receive his money back, and pocket the difference in the prices. If the price of the stock has risen when he covers, he loses the difference.

Purchases on Margin. Purchases of securities may be made on a cash or credit basis, but the acquisition on credit entails hazards which the prudent investor generally will refuse to undergo. If securities purchased in this manner fall in price, the investor becomes liable to the payment of the difference between the purchase price and the lower price at which the security may be sold. The great popularity of stock purchases on credit, so-called "margin" transactions, during the boom of the twenties brought financial ruin on countless small people after the break of the stock market during the Great Depression. Since 1934 the Federal Reserve Board has been authorized to establish "margin requirements," indicating the difference between the market value and the maximum permissible loan value. A margin requirement of 90 per cent, for example, such as prevailed in 1959 when the monetary authorities were desirous of restraining speculative excesses, means that an investor can buy securities on credit only to the extent of 10 per cent of the purchase price.

Investment under Inflation. Purchases on margin may seem especially attractive under inflationary conditions. The "speculative" purchase of stocks in times of inflation may not necessarily serve the purpose of making capital gains but may merely be designed to avoid capital losses in real terms. Thus, in a progressive inflation, holding on to bonds when general prices are rising involves a loss of purchasing power. Stock prices may rise sufficiently to avoid such a loss, but much, of course, depends upon whether the right stocks are bought at the right time (see Fig. 43). From 1939 to 1959, common stock prices, as measured by the index of the Securities and Exchange Commission, which covers 265 issues, rose from 100 to 420. During the same period, the consumer price index rose from 100 to 211.

Next to common stocks, real estate has been an inflation hedge favored by many people, either in the form of outright purchase or by means of participation in a "syndicate," organized usually as a limited partnership rather than as a corporation. Under this arrangement each of the partners invests a substantial amount, often $10,000, in the purchase of properties,

the liability of the limited partners being restricted to their investment. Syndicates of this type hold approximately $10 billion worth of properties, the equities of the partners amounting to an estimated one third of this sum. From an economic point of view, the organization closely resembles a corporation, but for reasons of tax economy and to avoid regulation by the Securities and Exchange Commission the form of the limited partnership is preferred. While the return to the partners often is 10 per cent or more, participation in a syndicate has its dangers. The investment cannot easily be liquidated and it lacks in diversification.[3]

COST-OF-LIVING INDEX AND COMMON STOCK PRICES, 1880–1959

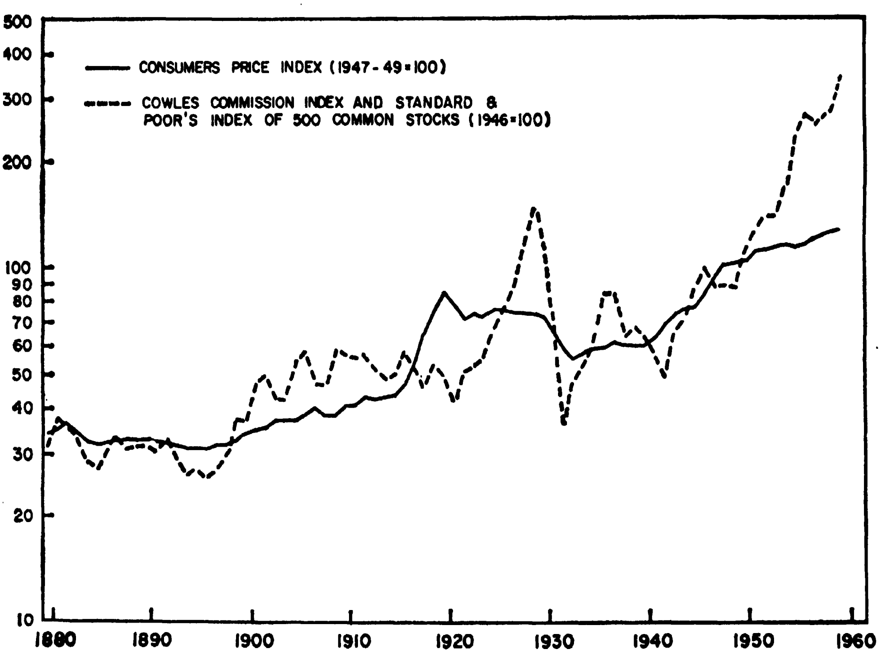

FIG. 43. The ratio scale of the chart indicates the relative rates of growth of stock prices and of the cost of living. From William C. Freund and Murray G. Lee, *Investment Fundamentals* (New York: American Bankers Association, 1960), p. 102. By permission.

According to Pick's *World Currency Report*, an annual publication which follows such matters closely, collectors' items such as antique furniture, paintings, and other pieces of art have been better inflation hedges than common stocks or real estate. Eighteenth-century French style furniture prices, for example, rose by over 200 per cent in 1958 and by 150 per cent in 1959. They headed the list, followed by the prices of old manuscripts and modern sculpture, which increased by 100 to 150 per cent in

[3] J. Richard Elliott, Jr., "Appraising the Syndicates," *Barron's*, June 8. 1959, pp. 5 ff.

1959, and those of paintings by the French postimpressionists, which rose by 80 per cent. Purchases of these items require large sums of money. Because of the international auction market, which is centralized in London, the investment can be liquidated without much delay.

During the postwar inflationary trend, gold has proved to be an unsuitable inflation hedge for Americans, the gold price having been stationary since 1934. While it is unlawful for an individual to own gold bullion or gold coins—other than collectors' items—in the United States, gold dust may be held and so may gold that is deposited abroad. Commissions are incurred, and no income is earned on such holdings. For a more complete discussion of the economic position of monetary gold the reader is referred to Chapter 22.

Problems of Taxation. The investor must be aware of certain peculiarities of the various tax laws, federal and state, which may place a premium on some transactions while causing others to be less advantageous. The federal income tax law considers gains from the appreciation of assets, or capital gains, as income subject to the tax. Short-term capital gains, that is, those arising from the purchase and sale of assets or securities held for a period of six months or less, are indeed taxable at the full rate of the income tax, just as is ordinary income. However, if the taxpayers has also incurred capital losses, whether of the short-term or of the long-term variety, he may deduct these from the short-term capital gains. Long-term capital gains on assets held for more than six months are, in effect, taxable only with one half of the gain; and in no event may the tax rate on them exceed 25 per cent. This last rule is of especial importance to taxpayers in higher brackets, whose income from other sources may be taxed at a rate as high as 87 per cent. In computing long-term capital gains, long-term and short-term losses can again be deducted.

If on balance there is a capital loss the taxpayer can offset it on a dollar-for-dollar basis against a maximum amount of $1,000 of other income; and if anything is left, it can be carried forward for five years and be offset in this manner.

The provisions regarding capital gains and losses cause people to hang on to their securities for longer periods of time than they might do in the absence of such provisions. If the income tax on gains from securities held for longer than six months is less than that on short-term gains, this will obviously supply an inducement to postpone the sale until the six months are over. Moreover, if a person leaves a security to his heir, no income tax liability falls due on any appreciation of its value which has occurred during the period preceding the time when it is passed on to its new owner. However, in other connections, considerations of tax liability may also invite sales. If the price of a security has fallen, there is the possibility of realizing the loss and offsetting it against capital gains or, within the indicated limits, against other income, thereby reducing one's income tax liability in a given

year. For this reason, many so-called tax sales are made, especially during the month of December, by persons who wish to lower their taxable income in this manner. The judicious realization of capital gains and losses thus can help a taxpayer to keep down the burden of the federal income tax.

Another important rule exempts income from state and municipal bonds from the federal income tax. This privilege bestows benefits on the states and municipalities, because the tax exemption feature enables them to issue bonds at lower interest rates than would be required in the absence of the privilege. These benefits may, however, be out of proportion to the losses suffered by the federal Treasury if wealthy individuals sink money into tax-exempt bonds, as they do on a large scale. The inducement to do this increases with the income bracket. At an effective income tax rate of 25 per cent the yield, after tax, of a taxable security earning 3.3 per cent is approximately equal to that of a nontaxable security earning 2.5 per cent. But at an income tax rate of 50 per cent the income from such a nontaxable security equals the yield of a taxable security earning 5 per cent, and at a tax rate of 70 per cent it produces an income equal to taxable securities carrying 8.5 per cent interest. It is hard to justify the tax exemptions of state and municipal bonds in the face of steeply progressive income tax rates. They dry up the sources of venture capital and drive it into gilt-edged investments, providing security and high yield as well. Also important is that the several states derive benefits from the privilege in an unlike manner; some have constitutional provisions limiting their bonded debt, while others enter into debts more freely.

Federal obligations issued before March, 1941, except Treasury and Savings bonds, had also been wholly exempt from the federal income tax. But all obligations issued since then are taxable. The older bonds which continue to enjoy the exemption privilege thus sell at higher prices than more recent issues.

Debt Payment. The disposition of savings by means of securities purchases is in the center of the problems of financial management confronting the individual. But the acquisition of securities issued by others is not the only way to use one's savings. An important alternative is the purchase of one's own securities, an act more commonly referred to as debt payment. Debt payment may commend itself on general grounds or because of specific circumstances attending the affairs of the debtor. On general grounds, boom times, characterized by high prices and liquidity, are especially suited for the reduction of business and personal debts. This is so because the decline of the value of money during such periods tends to minimize the burden which repayment of the debt places on the debtor. If he waits until prices have again fallen, the value of the debt, in real terms, will have increased and repayment will be more burdensome. It can also be expected that the borrower's liquidity will diminish as prices recede and business activity declines. But if the boom is inflationary in the sense that prices

are expected to rise to still higher levels, debtors will prefer to postpone debt repayment. Indeed they may try to profit from the further price increases by borrowing still more and turning the funds into such assets as are expected to appreciate in terms of money.

On more specific grounds, debt payment is advisable at any time when the cost of carrying the debt exceeds the gain which can be obtained with the help of the borrowed funds. By the same token, it would pay to borrow if the cost of borrowing falls short of the gain to be made with the borrowed money.

BORROWING MONEY

The costs at which small loans can be obtained for business or personal use are very high; in fact, interest rates have been shown to be inversely correlated with the size of the loan. The principal sources of commercial credit are commercial banks. The principal sources of personal loans are enumerated in this section.

The costs of small loans continue to be on a high level, because pure interest is only one element that enters into them. Expenses must be incurred by the lender when he investigates the financial standing and reliability of the prospective borrower. Once the loan has been granted, its service will entail payments of small installments, requiring elaborate accounting procedures that are expensive relative to the principal involved. The collection of such payments again requires expenses if the borrower defaults on his obligation. All these factors contribute to making charges for small amounts seem excessive.

A personal loan is granted on the personal security of the borrower and possibly on that of comakers who guarantee the fulfillment of the principal debtor's obligation. Sometimes property, real or personal, is pledged in security of the loan. Should the borrower fail to meet his obligation, the lender is entitled to dispose of the pledge.

The interest that is charged often reflects only inadequately the high costs which must be incurred in connection with the loan. Sometimes the borrower must pay certain fees, and he may even be compelled to purchase life insurance to the amount of the loan to protect the lender in the case of his death. Often the rate of interest is payable on the full principal, although the latter is immediately reduced by weekly or monthly installments.

Credit Unions. Generally, but not always, the costs of personal loans are kept to a minimum if loans can be obtained from credit unions. Credit unions are associations of people integrated by some common interest, such as employment in the same company. The credit unions derive their funds from savings deposits or shares to which the members subscribe. The minimum amount that can be subscribed is generally very low and rarely in

excess of five or ten dollars. Dividends, usually 4 per cent, are paid on the shares out of the credit union's profits. They are made on loans granted by the credit union to its members. The expenses incidental to making them are low because of the possibility to dispense with elaborate investigations into the borrower's financial conditions and to maintain an office free of rent in the company's quarters. Also the credit union is managed by the members, who make their services available without remuneration. Often there is a checkoff system of collection. Credit unions are exempt from federal and state taxes. The typical charge for loans is 1 per cent per month on the unpaid balance. As credit unions operate on the basis of perfect knowledge of the borrower's employment status, they rarely fail. They are supervised by federal or state authorities, depending upon the form of organization which their founders wish to adopt. Federal credit unions are under the jurisdiction of the Federal Deposit Insurance Corporation.

Commercial Banks. Personal loans may also be obtained from commercial banks. Generally interest is deducted for a whole year in advance, fees of various types are imposed, and sometimes an insurance policy must be taken out to guarantee payment of the unpaid balance in the case of death. Sometimes the cost of these loans is relatively low, lower even than loans obtained from a credit union. But usually the rate of interest is at least twice that for commercial loans. Commercial banks have come to provide a large part of all personal loans, because they operate almost everywhere, including in states and localities where the other institutions listed here are not active, and because their charges, as a rule, are moderate.

Consumer Finance Companies. The majority of states have adopted so-called "small-loan" legislation which regulates the activities of consumer finance companies—also known as "small loan companies" or "licensed lenders"—organizations that specialize in small personal loans. Some of these are large enterprises that maintain hundreds of branch offices throughout the country. Under uniform small loan legislation as it prevails in most states, a maximum rate of interest, amounting to 2 to 3½ per cent per month on the unpaid balance, places a ceiling on the amount that may be exacted from the borrower. Interest may not be deducted in advance; it is payable only on the unpaid balance for the number of days elapsed since the last payment. The rates of interest are very high. In view of the costs incurred by these enterprises, it has proved inopportune, however, to fix maximum rates at a substantially lower level. In states where this has been attempted the business of legitimate companies generally has been made impossible. They were replaced then by unlicensed lenders and loan sharks whose charges run considerably higher than the legal maximum.

While small loan companies often require security in the form of chattel mortgages on household goods, they rarely execute them, using them primarily as an incentive promoting prompt service of the loan.

Loans of consumer finance companies are in many states limited to the

amount of $300, a limit that has been outmoded by the progress of inflation.

Installment purchases of durable consumer goods have been discussed above, p. 134.

Industrial Banks. Industrial banks hold middle ground between consumer finance companies and commercial banks. Some of them are called *Morris Plan banks. The first of these enterprises was instituted in 1910* under the sponsorship of Arthur J. Morris, a financier who was concerned about the credit problems of small-loan people. The industrial banks specialize in small loans. Under the legislation of the various states, they may charge interest on the full amount of the original loans, regardless of installments, and collect investigation fees. The costs of loans obtained from industrial banks are often lower than those granted by consumer finance companies. To some extent, this is the result of the fact that the average loan granted by an industrial bank is about twice as large as that granted by a consumer finance company.

Pawnbrokers. Pawnbrokers are licensed under a variety of public regulations which often require bonding and impose supervision by the local police authorities. The pawnbroker grants loans on the security of collaterals, usually jewelry or clothing. Loans can be had quickly and without formalities; but interest rates are high, rarely less than 3 per cent per month.

POLICIES OF INSTITUTIONAL INVESTORS

The study of the financial policies of prominent institutional investors such as insurance companies and savings banks is of considerable interest, because the savings of so many individuals are put into insurance policies and savings accounts. But apart from this consideration the policies of these organizations are noteworthy, because they tend to reflect the highest standards of financial propriety. While there is some affinity between the investment needs of these institutions and those of an individual, the analogy must not be stretched too far, however. Institutions are unlikely to come into a position compelling premature liquidation of their investments on short notice. They therefore will not insist on absolute price stability of their securities. Nor do they look for an appreciation of the capital. Their principal aims are a steady flow of returns and a maximum of safety. Since their own obligations are expressed in terms of money, fluctuations in prices and resulting changes in the value of money affect them only to the extent that they cause an increase in the expenses of doing business.

Who are some of the institutional investors, and what is the relative significance of their portfolios? By far the most important group is the bank-administered personal trusts, which holds common stocks constituting about one half of the total value of the common stocks held by institutional investors. Trusts are legal devices under which, for example, property may be administered for the benefit of the heirs of a person. Next in line are the

investment companies, insurance companies, corporate pension funds, foundations, college endowments, and mutual savings banks, which together with miscellaneous other organizations own the other half of the common stocks held by institutional investors. As has been noted, the holdings of some of these institutions have increased at a rapid pace in recent years. Altogether, institutional investors of all types own approximately one third of the market value of all common stocks listed at exchanges or of similar investment quality. The share of the bank-administered trusts is slowly declining while that of the other institutional investors is rising, leaving the total proportion relatively stable.

State Regulations. The stock holdings of the institutional investors are concentrated among a relatively small number of "blue chips," and they are dwarfed by their holdings of bonds, mortgages, and other debt pieces. In general, institutional investors, which are the guardians of other people's savings, are not at complete liberty in the acquisition of securities but must abide by the regulations of state and federal authorities. Permissible purchases are defined either in terms of general classes of securities that may be acquired or on the basis of specific lists of "eligible" securities. Regulation in the state of New York is often considered to represent the highest standards and has served as a model for the legislation of other states.

Trustees may purchase common stocks under the "prudent-man" rule in effect in thirty-one states, including Massachusetts, where it has been in effect for over a century. This rule requires that a trustee observes the same discretion in the management of the funds under his control as would a man of prudence and intelligence in the management of his own affairs.

Until 1952, savings banks in New York State were not permitted to place any funds into common stocks or into foreign securities. Until the turn of the century the only "legal investments" were federal and state bonds, bonds of New York and of a few out-of-state municipalities, and bonds and mortgages with improved New York real estate as security. Some railroad bonds were admitted in 1898, and three decades later public utility bonds and railroad equipment issues were made eligible. Since 1938 high-grade industrial bonds may be purchased. Following the example of the New England states, New York now allows savings banks to invest in corporate stocks up to 5 per cent of their assets or 50 per cent of surplus funds and undistributed profits, whichever amount is the smaller. No bank may hold more than 2 per cent of the stock of one corporation or invest more than 1 per cent of its assets in the stock of one corporation.

Securities of a given class are not eligible *ipso facto* for investment by New York savings banks but must meet certain requirements. Stocks, to be eligible, must be listed on a national securities exchange and must have paid dividends regularly for at least ten years preceding the purchase. Bonds of out-of-state municipalities are acceptable only if the municipality has a minimum population and if its past financial record is free from specified

blemishes. In the case of railroad mortgage bonds the carrier must have at least 500 miles of line; its revenues during the past five years must have been at least $10 million; it must have earned its fixed charges at least one and a half times in the previous and in five out of the last six years; it must have paid cash dividends amounting to one quarter of the fixed charges, or, if no dividends were paid, must have earned its fixed charges at least one and a half times in the previous and in nine of the last ten years; and, finally, it must not have been guilty of default during the past six years. Requirements like these may be of help to the individual investor when he wants to appraise the security of a certain bond. From time to time they are changed, often in the direction of greater laxity, for limited periods of time when maintenance of the regular standards would eliminate an unduly large number of securities. During the thirties, for example, railroad bonds were eligible when the company's earnings equaled its fixed charges.

Insurance companies are permitted to acquire a limited amount of preferred and, of late, also of common stocks. This is now the rule in over 30 states, including New York. In this way, insurance companies are permitted to supplement the risk capital made available by individual investors.

SUMMARY

The successful management of an individual's investments depends upon the specific purpose the investor wants to pursue. He may be primarily interested in safe returns, in liquidity, or in capital gain.

When capital gains are desired, common stocks are the most suitable investment. But the investor must be aware of the fact that all common stocks fluctuate in value and that downward movements of the market will affect even the soundest stock.

Debt payment may be a sound investment of one's savings, especially in periods of high prices when repayment is least burdensome. But if inflation is expected to continue, borrowing may seem preferable to debt payments. In other cases it may be desirable to incur debts, provided there is a reasonable chance that the cost of carrying them will be less than the gain expected from the use of the borrowed funds. The cost of borrowing tends to fall with the amount of credit. Personal loans, granted in small amounts, are expensive. They can be obtained from a variety of institutions.

For purposes of information and guidance the study of the investment policies of institutional investors is commendable. Some of these are regulated by public authorities. As individual needs vary, policies of institutional investors must not necessarily be followed by others.

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STUDY QUESTIONS

1. What is the difference between real investment and financial investment?
2. If you get married, you may have $30,000 of your bank deposits insured. How does this work?
3. How have the prices of bonds behaved over the past decade?
4. What is the usual relationship between bond yields and stock yields?
5. What are "formula plans" for investment in securities?
6. What are mutual funds?
7. What is the difference between mutual funds and closed-end investment companies?
8. What are short sales?
9. What are margin transactions?
10. What kinds of investments commend themselves in times of inflation?
11. In what way does the federal income tax law extend favored treatment to capital gains?
12. Is it desirable to have income from state and municipal bonds exempt from the federal income tax?
13. Why can credit unions extend credit at low cost?
14. What are industrial banks?
15. What is the maximum rate of interest under small loan legislation?
16. Does the rate of interest always reflect the full cost of a loan?
17. Why are high interest rates charged for small loans ?
18. Should life insurance companies place a large portion of their funds into common stocks?
19. Is it profitable to be in debt during periods of inflation?
20. Why have mutual funds become so popular?

IV. *THE BALANCE OF FREEDOM AND ORDER*

Chapter 15 THE MAINTENANCE OF FREE ENTERPRISE: CONCENTRATION OF ECONOMIC POWER

To the Four Freedoms—of speech and expression, of religion, from want, and from fear—which President Roosevelt has proclaimed, a Fifth was added by former President Hoover: economic freedom.[1] Economic freedom entails freedom of enterprise, or free enterprise, defined by the former President as the freedom for all "to engage in enterprise so long as each does not injure his fellow-men." But conditions are not altogether favorable to the unhampered growth and development, in a free market, of independent business units. On principle, there is freedom of entry into any line of business, but in practice this freedom is often restrained: by the requirement of a license, franchise, or certificate of convenience and necessity. Other curtailments of freedom of entry arise from the control of natural resources, refusals to sell, and large capital requirements indispensable in many lines of economic activities. Thus it is in agriculture and retailing, in particular, that free entry operates most effectively, as it does in the whole area of small business—over and beyond little business—with its numerous service trades.

Elsewhere, business units have grown large, often so large that they have come to be run in an impersonal manner by rules and regulations that resemble those under which government establishments operate.[2] The free play of individual initiative is restrained by an all-pervasive trend toward

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[1] The Four Freedoms were stated in an address to Congress on January 6, 1941. The Fifth Freedom was formulated in an article in *The Rotarian* for April, 1943. It has since then been reprinted frequently, for example, in William Ebenstein (ed.), *Man and the State* (New York: Rinehart & Co., 1947), pp. 359–62.

[2] The position of the individual serving such establishments, "the clash between the individualistic beliefs he is supposed to follow and the collective life he actually lives," is admirably discussed by William H. Whyte, Jr., *The Organization Man* (New York: Simon & Schuster, Inc., 1956). See also Alan Harrington, *Life in the Crystal Palace* (New York; Alfred A. Knopf, Inc., 1959).

monopoly, oligopoly, and monopolistic competition. Economic power has become highly concentrated, and manifestations of competition in the technical sense of the term are on the decline. Only to a very moderate extent has it been possible to stem this development by means of legislation.

This chapter is devoted to a discussion of these problems. It is subdivided into five sections. The first of these contains an appraisal of the structure of modern business organization, especially of the large corporation with its separation of ownership and control. The second investigates the extent of concentration in major industries. The third examines the causes and types of economic concentration. In the fourth the manifestations of monopoly power and of its corollary, the decline of competition, are analyzed. The chapter is concluded with a discussion of the antitrust legislation and related measures.

THE ORGANIZATION OF MODERN BUSINESS

The Business Population. There are over 4.7 million business firms operating in the United States. The concept used here excludes farms, professional services, and self-employed persons who have neither at least one paid employee nor an established place of business. The inclusion of these groups would more than double the size of the business population.[3]

With the exception of such periods as the Great Depression of the 1930's and the war years of the 1940's, the business population tends to rise every year. Usually, the number of new firms that are established in a year exceeds the number of old firms that are discontinued, and the net rate of change tends to reflect the general level of business activity in a fairly certain manner: the business population (the concept always being used in its narrower sense) tends to increase by approximately 100,000 firms for every rise of $11 billion in the real gross national product, excluding government and agriculture.

If we relate the number of firms to the total population, we observe that since the turn of the century the business population has increased at a slightly faster rate than did the total population. In 1900, there were about 21 firms for each 1,000 people; 50 years later, there were 27 firms per 1,000 people. In appraising this trend, we must remember that the "business population," as the term is used in the present context, does not include farms. The increasing industrialization of our country becomes apparent also when we relate the number of firms to the number of farms. A century ago, there

[3] The information about the business population (narrower concept) may be found in articles by Betty C. Church in the *Survey of Current Business*, April and December, 1955; May and September, 1959; May, 1960. For data relating to the wider concept see U.S. Treasury Department, Internal Revenue Service, *Statistics of Income, 1957–58: U.S. Business Tax Returns* (Washington, D.C.: U.S. Government Printing Office, 1960).

were five farms per firm; in 1900, there were three. At the present time the ratio is slightly over one; and if current trends continue, it will be one to one before long.

If we examine more closely the characteristics of discontinued business firms as well as of newcomers to the business population—these two groups being the ones which account for changes in the total business population—we observe that the great bulk of the concerns making up either group are small enterprises. The stability of large firms is indeed considerably greater than that of small ones. Mortality among the newcomers is very high. In the light of experiences during the period from 1947 to 1954, it seems that the percentage of newly acquired firms that survive the first full year of operation varies from 62 per cent in retailing to about 75 per cent in wholesale trade and finance. Two out of three newly acquired firms fail to survive the first 3½ years; only one in five survives ten years.[4] The life expectancy, hence, is especially low among newly established firms, and it increases with age.

Although corporations may extend their life indefinitely, a high rate of mortality has been found also among the corporate businesses. Estimates prepared for the period from 1925 to 1946 indicate that only 87 out of 100 newly chartered corporations tend to survive as active the first year of operations. After five years the percentage surviving as active is 45; after ten years, it declines to 22 per cent; and after twenty years, to 10 per cent. It seems that, in general, an older corporation has a better chance of survival than a younger one—until its age exceeds approximately 55 years.[5]

Concentration of Employment. While most business firms are small, economic power is heavily concentrated among the large ones. Criteria for smallness or bigness vary. The Small Business Administration, for example, will issue a Small Business Certificate (useful for purposes of obtaining orders from the federal government) to an enterprise that is not dominant in its field of operations and has fewer than 500 employees—although exceptions may be made with respect to the number of employees. For its other functions, the Small Business Administration considers a manufacturing firm as small if it has 250 or fewer employees, and as large if it has more than 1,000 employees. Wholesalers and construction enterprises are considered small if their annual volume of business is $5 million or less, retailers if the annual sales are $1 million or less. Obviously, different types of business require different standards. A steel mill or a shipyard, employing

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[4] See references in note 3; also Paul J. Fitzpatrick, *The Problem of Business Failures* (Philadelphia: Dolphin Press, 1936).

[5] It goes without saying that corporate death rates are much less standardized than those of natural persons, reflecting, as they do, the prevailing business conditions. The estimates cited above are median values of those given by William L. Crum, *The Age Structure of the Corporate System* (Berkeley and Los Angeles: University of California Press, 1953), pp. 176, 135.

a few thousand people, is small in terms of the standards set by the respective industry, although it will appear as very large in comparison with the corner drugstore.

As a fundamental measure of business concentration, we may group enterprises by the number of their employees, and, in turn, employees by their distribution among enterprises having specified numbers of employees. The data required for this analysis are available only for certain employees—not all of them—covered by old age and survivors insurance. They include the bulk of commercial and industrial employees, but not those of the railroads, the self-employed, and those groups of employees to which the coverage of old age and survivors insurance was extended only during the 1950's, farm laborers, for example.

Altogether there are included 3 million employers and 41 million employees. Over 40 per cent of the latter are in enterprises with 500 or more workers. Over 60 per cent of all employers have one, two, or three workers; less than 40 per cent have more than 3. Ninety-two per cent of all employers have less than 20 workers; 0.01 per cent have over 10,000 workers each. The former group of employers has on the payroll 25 per cent of all workers; the latter, close to 18 per cent. The 40 per cent of all workers in enterprises with 500 or more workers are employed by less than 0.3 per cent of all concerns; the 7 per cent of all workers in enterprises with 3 or fewer employees are employed by 61 per cent of all concerns. These calculations are derived from Table 24.

TABLE 24

ESTIMATED NUMBER OF EMPLOYERS AND WORKERS COVERED BY OLD AGE AND SURVIVORS INSURANCE, BY SIZE OF CONCERN, UNITED STATES, JANUARY-MARCH, 1956*

Size of Concern as Measured by Number of Workers	Employers, Thousands	Workers, Thousands	Per Cent	
			Employers	Workers
Total	3,006.5	40,979	100.0	100.0
1-3	1,834.0	3,095	61.1	7.3
4-7	563.9	2,909	18.7	7.1
8-19	381.5	4.555	12.7	11.1
20-49	142.3	4.297	4.7	10.5
50-99	46.0	3,139	1.5	7.7
100-499	32.3	6,349	1.1	15.5
500-999	3.4	2,304	0.1	5.0
1,000-9,999	2.8	7,207	0.1	18.0
10,000 and over	0.2	7,124	0.01	17.8

* *Statistical Abstract of the United States, 1959* (Washington, D.C.: U.S. Government Printing Office, 1959), p. 487.

The Corporation. Only about 600,000 business firms are corporations, approximately one eighth of the business population, but these are most prominent by all standards of reckoning.[6] In the field of manufacturing,

[6] There are some 700,000 partnerships. The rest is composed of sole proprietorships.

corporations earn well over 90 per cent of total business receipts, and their employment covers a similar proportion of all manufacturing workers. In mining, corporations account for over 80 per cent of total business receipts. The corresponding figure for public utilities and transportation is over 90 per cent. Corporations are less prominent in building construction and wholesale business. In retailing, where they are least important, they nevertheless earn over 50 per cent of business receipts.[7] Only a few corporations are engaged in farming, although during the Great Depression, when there were many foreclosures of farms, the Metropolitan Life Insurance Company had for a while become the largest single owner of farm land in the United States.

American corporations are owned by an estimated 12.5 million stockholders, nearly twice as many as in 1952. One out of eight adults is a shareowner.[8] Of the 100 largest manufacturing corporations, over 50 report more shareholders than employees. Notwithstanding the wide diffusion of ownership, the holdings of the great bulk of the stockholders—they include, by the way, more women than men—are small, and for them the dividend income is only a modest supplement to income from other sources. While there is evidence that stock ownership is spreading to lower-income groups, stockholdings continue to be highly concentrated. Estimates for 1960 indicate that the 2½ per cent of all families who have incomes of over $15,000 and are stockholders own 42 per cent of the value of all stock. The less than 6 per cent of all families who have an income of over $10,000 and are stockholders own 64 per cent.[9]

The Large Corporation. Most corporations are small if measured by their assets, number of employees, or value of output. Approximately every third corporation has assets worth less than $50,000. But it is a very limited portion of all corporations that does the bulk of the corporate business and of business generally. The assets of all the corporations with assets of less than 100,000—more than one half of all corporations—amount only to 2 per cent of total corporate assets. Less than 7 per cent of all corporations account for 90 per cent of the net income of all corporations.[10]

It appears that the share of the giant corporations in the nation's business moves steadily upward. The 200 largest nonfinancial corporations—that is, those outside of commercial banking, insurance, investment, and the trust field—owned assets that have risen, in per cent of the assets of

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[7] The corporate share in total business receipts is estimated on the basis of data found in *Statistics of Income, 1957–58: U.S. Business Tax Returns, op. cit.*

[8] New York Stock Exchange, *Share Ownership in America: 1959*, June, 1959. See discussion by Irwin Friend, American Statistical Association, *Proceedings* of the Business and Economic Statistics Section, 1959, pp. 63–65.

[9] University of Michigan, Survey Research Center, *1960 Survey of Consumer Finances: Stock Ownership Among American Families*, June, 1960, p. 5.

[10] *Statistical Abstract of the United States, 1959* (Washington, D.C.: U.S. Government Printing Office, 1959), pp. 490 f.

all nonfinancial corporations, from 33 per cent in 1909 to 48 per cent in 1929 and to 55 per cent in 1933.[11] Estimates for later periods are not in terms of assets but in terms of value of product, and they are for manufacturing alone. They indicate that the 200 largest manufacturing concerns turned out 37.7 per cent of the total value of product of all manufacturing industries in 1935, and 40.5 per cent in 1950.[12] According to another estimate, the 200 largest manufacturing companies contributed 30 per cent to the total value added by manufacture in 1947, and 37 per cent in 1954.[13]

The concentration of economic power is pronounced also in the financial sector of the economy. In 1955, the insured banks with deposits of $250 million or more, less than 1 per cent of all insured banks, held 45 per cent of all deposits of insured banks.[14]

The very largest corporations represent such concentrations of wealth and power that they overshadow the aggregate property values within the confines of many states. There were some seventy "billion-dollar" corporations in 1956 (there are more now, see Table 25), and there were then only five states which had within their respective borders property valued higher than the assets of the two largest of these giants, the American Telephone and Telegraph Company and the Metropolitan Life Insurance Company. Twenty years earlier there had been ten states with property values exceeding the assets of these two corporations.[15] Again in 1956, in nine other states the taxable wealth fell short of the assets of even the smallest of the billion-dollar corporations. Although valuations in the various states tend

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[11] "Economic Concentration and World War II," *Report of the Smaller War Plants Corporation to the Special Senate Committee to Study Problems of American Small Business* (79th Cong., 2nd sess.), Sen. Doc. No. 206 (Washington, D.C.: U.S. Government Printing Office, 1946), p. 6.

[12] Federal Trade Commission, *Report on Changes in Concentration in Manufacturing, 1935 to 1947 and 1950* (Washington, D.C.: U.S. Government Printing Office, 1954), p. 17. For a critical analysis of such estimates and for statements indicating doubts about a substantial increase of concentration in the twentieth century, see references cited there on pp. 1 and 19, especially articles by M. A. Adelman and Gideon Rosenbluth. See also M. A. Adelman, "Federal Trade Commission Report on Changes in Concentration in Manufacturing," *Journal of the American Statistical Association*, Vol. L (September, 1955), pp. 660–64; the same, "A Current Appraisal of Concentration Statistics," American Statistical Association, *Proceedings*, Business and Economics Section, 1957; Gideon Rosenbluth, "Measures of Concentration," National Bureau of Economic Research, *Business Concentration and Price Policy* (Princeton: Princeton University Press, 1955), pp. 57–99; the same, "The Trend in Concentration and Its Implications for Small Business," *Law and Contemporary Problems*, Winter, 1959, pp. 192–207.

[13] "Concentration in American Industry," *Report of the Senate Subcommittee on Antitrust and Monopoly*, 85th Cong., 1st sess., (Washington, D.C.: U.S. Government Printing Office, 1957), p. 11.

[14] *Statistical Abstract of the United States, 1959* (Washington, D.C.: U.S. Government Printing Office, 1959), p. 442.

[15] Temporary National Economic Committee, *Final Report and Recommendations* (77th Cong., 1st sess.), Sen. Doc. No. 35 (Washington, D.C.: U.S. Government Printing Office, 1941), pp. 675–78.

to understate the actual property values, these figures are impressive illustrations of the strength of corporate power.[16]

Most of the large corporations operate a substantial number of establishments. For example, the 1,000 largest manufacturing corporations maintained some 11,000 plants in 1950, the range per corporation extending from one to 358. Thus, the large corporation typically is a multiplant concern.[17]

The two most important characteristics of the large corporation are its prominence, as documented in the preceding paragraphs, and the peculiarities of its control, created by its very size. This field of enquiry was opened up with the pioneering study of Berle and Means, *The Modern Corporation and Private Property*,[18] which investigated the location of control over large corporations and arrived at the conclusion that ownership has been divorced from control in a wide segment of the American economy. Their findings were confirmed in a subsequent study of the 200 largest nonfinancial corporations.[19] Since the ownership of these corporations is widely diffused, the bulk of the individual stock holding tends to be small. Since many thousand, and in a few cases, some hundred thousand, stockholders share the ownership of large corporations, the interest of the individual stockholder in the affairs of the corporation is minute and so is his ability to appraise intelligently the issues which arise in its operation. In a wide sector of the corporate business, it is impossible to identify a specific control relationship between the management and the more prominent groups of stockholders. There the divorce of ownership from control is complete in the sense that the proprietary function has been reduced to advancing funds and receiving dividends. A substantial part of the American economy is thus controlled by a bureaucracy of corporate officials whose responsibility to the public is less well-defined than that of government officers. There is little to do in such a corporation for a stockholders who is dissatisfied, except for selling his stock. Proxy fights occur only rarely, perhaps ten to twenty times in a year. They are extremely costly in terms of money and effort, and when they do occur, they often make the headlines of the newspapers.

[16] "The *Fortune* Directory of the 500 Largest U.S. Industrial Corporations," *Fortune*, Supplement, July, 1956; and *Statistical Abstract of the United States, 1959, op. cit.*, p. 416.

[17] Federal Trade Commission, *Report on Industrial Concentration and Product Diversification in the 1,000 Largest Manufacturing Companies: 1950* (Washington, D.C.: U.S. Government Printing Office, 1957), p. 35.

[18] New York, Macmillan Co., 1933.

[19] Temporary National Economic Committee, *The Distribution of Ownership in the 200 Largest Nonfinancial Corporations*, Monograph No. 29 (Washington, D.C.: U.S. Government Printing Office, 1940). See also R. A. Gordon, *Business Leadership in the Large Corporation* (Washington, D.C.: Brookings Institution, 1945), especially pp. 43 ff., 166 ff.

TABLE 25

CORPORATIONS WITH ASSETS OF $1 BILLION OR MORE, 1959–60*

	$ Billion
Industry	
1. Standard Oil (N.J.)	9.9
2. General Motors	7.9
3. U.S. Steel	4.7
4. Ford Motor Co.	3.9
5. Gulf Oil	3.6
6. Socony Mobil Oil	3.3
7. Texaco	3.3
8. Du Pont de Nemours	3.0
9. Standard Oil (Indiana)	2.8
10. Bethlehem Steel	2.7
11. General Electric	2.6
12. Standard Oil of California	2.6
13. Amer. Telephone & Electronics	1.8
14. Shell Oil	1.8
15. Philips Petroleum	1.6
16. Union Carbide	1.6
17. Westinghouse Electric	1.5
18. Western Electric	1.5
19. International Bus. Machines	1.5
20. Sinclair Oil	1.5
21. Chrysler	1.4
22. Aluminum Co. of America	1.4
23. Cities Service	1.3
24. Anaconda	1.1
25. International Harvester	1.1
26. Goodyear Tire & Rubber	1.0
27. Republic Steel	1.0
28. Armco Steel	1.0
Merchandising	
29. Sears Roebuck	2.0
Transportation	
30. Pennsylvania Railroad	3.0
31. New York Central Railroad	2.6
32. Southern Pacific	2.3
33. Atchison Topeka & Santa Fe	1.6
34. Union Pacific Railroad	1.5
35. Baltimore & Ohio Railroad	1.3
36. Chesapeake & Ohio Railway	1.1
Utilities	
37. American Tel. & Tel.	19.5
38. Pacific Gas & Electric	2.3
39. Consolidated Edison	2.0
40. Commonwealth Edison	1.6
41. El Paso Natural Gas	1.5
42. American Electric Power	1.4
43. General Telephone	1.3
Utilities (Continued)	
44. Tennessee Gas Transmission	1.2
45. Public Service El. & Gas	1.2
46. Southern Cal. Edison	1.2
47. Columbia Gas System	1.2
48. Southern Company	1.1
49. Am. & Foreign Power	1.0
Life Insurance	
50. Metropolitan	16.3
51. Prudential	14.7
52. Equitable Life Assurance	9.3
53. New York Life	6.7
54. John Hancock Mutual	5.5
55. Northwestern Mutual	3.9
56. Aetna	3.6
57. Travelers	3.1
58. Mutual of New York	2.6
59. Massachusetts Mutual	2.2
60. New England Mutual	2.0
61. Connecticut General	1.9
62. Mutual Benefit	1.8
63. Penn Mutual	1.7
64. Connecticut Mutual	1.4
65. Lincoln National	1.4
Commercial Banks	
66. Bank of America	11.3
67. Chase Manhattan Bank	8.3
68. First National City Bank	8.1
69. Manufacturers Trust	3.7
70. Chem. Corn Exchange Bank	3.6
71. Security-First National Bank	3.4
72. Guaranty Trust of N.Y.	3.2
73. Bankers Trust	3.1
74. First National Bank of Chicago	3.0
75. Cont. Ill. National Bank	2.9
76. Mellon National Bank & Trust	2.1
77. Irving Trust	2.0
78. Hanover Bank	2.0
79. National Bank of Detroit	1.9
80. First National Bank of Boston	1.9
81. American Trust (S.F.)	1.8
82. Crocker-Anglo National Bank	1.7
83. Cleveland Trust	1.5
84. California Bank	1.2
85. First Pa. Banking & Trust	1.2
86. Phila. National Bank	1.1
87. First Western Bank	1.1
88. Republic National Bank of Dallas	1.0
89. New York Trust	1.0

* "The *Fortune* Directory," *Fortune*, August, 1959, pp. 123 ff., July, 1960, pp. 131 ff.

CONCENTRATION IN MAJOR INDUSTRIES

For the year 1954 estimates are available of the share of the largest companies in the value of the shipments made by their respective industries. A selection of these estimates is shown in Table 26. The industries may be divided into four separate groups of concentration: extreme, high, moder-

TABLE 26

CONCENTRATION IN TWENTY-SIX SELECTED INDUSTRIES, 1954*

PER CENT OF INDUSTRY SHIPMENTS ACCOUNTED FOR BY:

	4 Companies	8 Companies	20 Companies
1. Aluminum	100		
2. Linoleum	87	†	100
3. Copper smelting and refining	86	†	100
4. Typewriters	83	99	100
5. Cigarettes	82	99+	100
6. Tin cans and other tinware	80	88	96
7. Tires and tubes	79	91	99+
8. Motor vehicles and parts	75	80	87
9. Tractors	73	88	97
10. Biscuits and crackers	71	77	85
11. Distilled liquors	64	79	93
12. Glass containers	63	78	92
13. Organic chemicals	59	73	87
14. Steel works and rolling mills	54	70	85
15. Electrical appliances	50	61	79
16. Aircraft	47	76	96
17. Flour and meal	40	52	86
18. Meat-packing plants	39	51	60
19. Plumbing fixtures and fittings	36	52	72
20. Footwear, except rubber	30	36	45
21. Canned fruits and vegetables	28	39	52
22. Carpets and rugs, except wool	27	42	65
23. Woolen and worsted goods	27	38	55
24. Pharmaceutical preparations	25	44	68
25. Milk and milk products	23	29	36
26. Bread and related products	20	31	40

* "Concentration in American Industry," *Report of the Senate Subcommittee on Antitrust and Monopoly*, 85th Cong., 1st sess. (Washington, D.C.: U.S. Government Printing Office, 1957), pp. 243 ff.

† Not available.

ate, and low. Twelve industries fall into the extreme concentration group, in which over 60 per cent of control is reached by four or fewer companies. Another seven industries may be said to be characterized by high concentration: in these industries eight companies account for more than 50 per cent of shipments made in the industry. In this group the steel industry stands out. In the moderate concentration group—four industries—over 50 per cent of the shipments originates from 20 companies. Relatively low

concentration is a feature of three industries, in which the shipments of the 20 largest companies do not reach 50 per cent. Industries included in this group are milk and milk products, bread and related products, and footwear. As all classifications, this one is not without blemishes. In the footwear industry, for example, the largest single concern has a dominating position, owning, as it does, some 20 per cent of the total assets of the industry. None of the three industries included in the low-concentration group is the nation's least concentrated industry, but data for industries characterized by lesser concentration are here omitted.

CAUSES AND TYPES OF ECONOMIC CONCENTRATION

It is difficult to determine exactly which of the causes that are responsible for the growth of the business unit weighs most heavily on balance. The question is of considerable importance, because large concerns are apt to be accused of unlawful monopolistic practices. What, then, accounts for economic concentration?

Causes of Concentration. There exist in this matter two schools of thought. One group of students attributes principal responsibility for the development of monopoly power to the government. It focuses attention on the role of the tariff as promoter of monopoly and upon such legal institutions as patents and incorporation laws. Other authorities will insist, however, that large-scale enterprise, with its attending tendency toward monopolistic constellations, is not so much the outcome of legislation and similar institutional factors but of the greater efficiency of this type of organization. Unlike a small business firm, large-scale enterprise can finance research adequately enough to exhaust the opportunities which beckon at the frontiers of modern science. Du Pont reportedly spent $27 million on nylon research before the product was ready for commercial marketing. Would a small firm's financial resources suffice to support a research program similar in size; and if they did, would not the risk of failure act as a much stronger deterrent than in the case of a large enterprise, whose eggs are not all in one basket?

Large enterprises have at their disposal various opportunities for economies which smaller firms may not have at all or only to a limited extent. Large enterprise can use relatively more capital in the process of production and can use it more economically. It can go further than a small concern in the division of labor and in specialization of all sorts, hiring more highly specialized factors and standardizing output. It has been shown for example, that the amount of electric energy that is utilized per man-hour rises fairly regularly with the size of the plant.[20] This, in turn, seems to demonstrate

[20] Temporary National Economic Committee, *Technology in Our Economy*, Monograph No. 22 (Washington, D.C.: U.S. Government Printing Office, 1941), p. 203. Note that this observation refers to the plant, not to the firm.

that with increasing size the quantity and, perhaps, also the quality, of capital equipment increases. It is also true that large companies tend to pay higher wage rates than small ones.[21] This may be interpreted as an indication of greater productivity of labor employed in large plants, resulting, perhaps, from more generous equipment with capital or from the employment of a superior type of personnel. Large firms not only tend to pay higher wages; they are also in the position to accede more readily than small concerns to pension and annual wage plans.

The advantages of large enterprises reveal themselves in many other respects, such as, for example, in different costs of borrowing. The relative expenses incidental to the flotation of securities of a small firm is a multiple of those incurred on account of large issues. Smaller firms must rely to a great extent on short-term finance, which is expensive anyhow; and there again the rates vary inversely with the size of the loan.[22]

The vertical integration of enterprises may facilitate the synchronization of the various stages of production to an extent impossible of achievement under independent managements. Horizontal integration may entail economies of selling costs. As will be noted, integration often is a prelude to consolidation.

All these factors would seem to support the view that large-scale enterprise is superior in efficiency. Assuming, for the moment, that this is the case, we should expect large-scale enterprises to be capable of earning abnormal profits over long periods of time. As a group the largest corporations (with assets of $50 million and more) have indeed never made deficits, not even in 1931 to 1933, when there were deficits among all other size groups. Also, it has been observed that for all corporations, rates of return on the average tend to rise with size.

All these considerations, underlining, as they do, the advantages of scale, do not provide convincing proof of the greater efficiency of the giant corporations. Their abnormal profits can be interpreted just as well as a manifestation of monopoly power in the sale, and of special bargaining strength in the purchase, of products. To reach definitive conclusions the factors productive of economies of scale would have to be separated from those that bestow monopoly power on the enterprise, a method of isolation to which the statistical material rarely lends itself.

Monopolistic Combinations. As has been noted, monopoly power may also arise on the basis of combinations, which will be studied in fuller detail in the section to follow. As Adam Smith, the founder of economic science, once put it, "people of the same trade seldom meet together, even for merri-

[21] Temporary National Economic Committee, *Hourly Earnings of Employees in Large and Small Enterprises,* Monograph No. 14 (Washington, D.C.: U.S. Government Printing Office, 1940).

[22] "Problems of Small Business Financing," *Report of the Select Committee on Small Business,* House of Representatives, 85th Cong., 2nd sess., House Report No. 1889 (Washington, D.C.: U.S. Government Printing Office, 1958), p. 44.

ment and diversion, but the conversation ends in a conspiracy against the public, or in some contrivance to raise prices."[23] Combinations may vary all the way from loose understandings to formal agreements. They are occasionally referred to as "cartels," although the scope of this term is not strictly defined. Combinations or cartels may include only domestic enterprises, or they may be international. In practice, it is difficult to delineate from international cartels the various commodity agreements which often are concluded under government sponsorship. Generally these agreements aim at control over output or sales in order to stabilize prices.

The limiting case of monopolistic combinations is the merger, or consolidation, under which all or some of the participating enterprises may abandon their corporate existence. Legal independence is preserved in the case of the technical trust, an agreement, now obsolete, under which the participants transfer stock holdings in return for trust certificates. Still another arrangement is the pool, generally of earnings which then are redistributed among the partners. Most important, perhaps, is the use of the holding-company device under which a company acquires stock in other corporations. At the other end of the scale are formal and informal agreements concerning prices, output, sales, market territories, and the like.

We will now turn to the typical market situations to which economic concentration gives rise. They may be either monopoly or oligopoly, or the oligopolistic character of the market may be complicated by product differentiation. In this case, we speak of monopolistic competition.

Monopoly. The market situation which confronts large-scale enterprise is rarely one of pure competition, where there are many sellers bringing a standardized product to the market, and where the number of sellers may be increased by the arrival of new firms. Under monopoly, there is only one seller or a group of sellers acting as one. The monopolist cannot dispose of any and all quantity of output at the going price but must relax his price if he wants to increase his sales.

Under pure competition the seller does not suffer a decline in price if he expands output. But neither can he force prices up by reducing output. He will sell all that he can produce so long as the rising marginal costs do not exceed the price. To him, price, or average revenue, is identical with marginal revenue, the revenue added by the marginal product.

All this is different in the case of monopoly. Since the monopolist shares the market with no one, in the absence of substitutes it is his supply alone that is available to meet the demand for the unique product put out by him. At a low price, he can dispose of much; at a high one, of little. By varying output, he thus can control price and costs, to maximize profit.

[23] *The Wealth of Nations*, 1776, Bk. I, chap. x, Pt. II. In our own days, Justice Holmes said that "free competition means combination. . . . It seems to me futile to set our faces against this tendency." *Vegelahn* v. *Guntner*, 167 Mass. 92 (1896). This was meant to apply to combinations of workmen.

The equilibrium output of the monopolist is smaller and his price higher than are output and price of a competitive seller.[24] Equilibrium, it will be recalled, prevails when profits are maximized. Both under monopoly and competition, they are at their peak at an output where the marginal product adds as much to revenue as it does to cost. Under pure competition the marginal product always adds the price, or average revenue, to total revenue. Equilibrium thus prevails when marginal cost equals price. Under monopoly the revenue added by the marginal product is less than price. This is so because larger quantities must be sold at lower prices, and the lower price applies to the marginal as well as the nonmarginal products. The seller will want to equate marginal cost with marginal revenue; but as the latter under monopoly always falls short of the price at a given output, equilibrium output will be below the competitive level. This follows from the fact that marginal costs will be equal to marginal revenue at an output volume smaller than that at which they would be equal to price. And at the lower volume of output the price will be higher than it would be at a larger volume.

Oligopoly. The term "monopoly" is used to designate a market situation where there is only one seller or a unified group of sellers. Oligopoly prevails when there are a small number of enterprises marketing the product. As has been seen, many markets are characterized by the operations of a few large companies, which absorb sizable portions of total sales. When oligopoly prevails, changes in the price and output policies of each seller will immediately be felt by the others. Usually, oligopolists act as one and allegedly without agreement. Often the oligopolists rely upon some sort of system of pricing which makes the action of the "rivals" calculable and adherence to the system profitable. The frequently observed practice of submitting identical bids is a case in point.[25] Oligopolists also may hesitate to lower prices and increase sales, because such an action on the part of one may elicit reprisals and start a price war that could be disastrous for all. If there is agreement, concerted action, or conspiracy, this is regarded by the courts and antitrust agencies as "monopoly." But without an agreement, the oligopolists may maintain price and output at a level with the one most profitable for a monopolist, observing what has been called "concurrent action" or "conscious parallelism of action." Often they are attached to a policy of live and let live and inclined to consider the rival who cuts his

[24] This assumes, of course, that both situations are comparable in every respect. Actually, a monopolistic firm, if transformed into a competitive industry, might be deprived of important economies, with a resulting upward shift of the cost curves. Moreover, consumers, with their preference for trade-marks and brand names, apparently desire a certain amount of monopoly and of the variety of products generated by product differentiation.

[25] See Vernon A. Mund, "Identical Bid Prices," *Journal of Political Economy*, Vol. LXVIII, No. 2 (April, 1960), pp. 150 ff.

price as "chiseler." If there is no agreement, unity of action on the part of the oligopolists now escapes prosecution.[26]

But oligopoly may indeed lead to price wars and has done so often in the past, when conditions were more unsettled. Oligopolists do not only aim at maximum profits; they are interested also in securing an entrenched position that will protect them from possible attacks of their rivals. Indeed the situation may be such as to warrant application of the rules of strategy. These may call for the temporary surrender of the goal of maximum profits, if at this cost the annihilation of the rival may be obtained. Price wars may then ensue, culminating in the defeat of the rival whose enterprise is merged or consolidated with that of the victor.

Since the prices charged by monopolists and oligopolists are the intended results of deliberate policies—rather than the unintended consequences of impersonal forces of competition—they are sometimes known as "administered prices" (see also above, p. 172).

Monopolistic Competition. Prices may also be higher and output lower than under pure competition when there is product differentiation. On account of location, circumstances attending the sale, advertising, trademarks or names, patents, packaging, and the like, customers become attached to a certain product and attribute to it characteristics, real or imaginary, which differentiate it from similar products. The seller of such a product can dispose of different quantities at different prices and thus acquires the power of a monopolist. In its exercise, he is restricted, however, by the availability of close substitutes and the possibility of free and easy entry of newcomers into the trade. The resulting market situation is one of competition among several "monopolistic competitors," competition being strong enough to eliminate profits above normal. The downward sloping demand curve for the product sold under monopolistic competition is then bound to touch the downward-sloping average-cost curve at a higher point, indicative of lower output and higher price, than would be true of the horizontal sales curve of a seller under pure competition. If, as may well be the case, the market is, in addition, oligopolistic, and/or entry of newcomers is restricted, excess profits may be earned.

Effective Competition. With pure competition conspicuously absent in many markets, there are, nevertheless, a number of tendencies operating in our economy that favor competition. The networks of transportation and communication have become tightly knit ones, connecting, as they do, the inhabitants of the remotest corners with a variety of markets. With the growth of alternative transportation facilities, the monopoly power of the railroads has diminished. In commodity markets generally there has occurred a remarkable increase in the number of commodities serving an

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[26] *Theater Enterprises* v. *Paramount Film Dist. Corp.*, 346 U.S. 537 (1954).

identical or similar purpose. Research has ceased to be the exclusive preserve of the large enterprises, since it is made available to small firms by specialized research organizations on a contractual basis. Often there has also been observed a tendency to break down customary jurisdictional bounds in the field of distribution. In view of these and similar trends, it is not surprising that economists have for long been in search of a market structure that would reflect reality more fully than the concept of pure competition and that, at the same time, would be free of the opprobrium attached to the various monopolistic concepts. Under the influence of this way of thinking, there have emerged a number of concepts of "workable" or "effective" competition. Most of these call for an appraisal of a given market situation in the light of such criteria as the progressiveness of the technology, the passing on of cost reductions to the purchasers, the absence of excess capacity and of unusually large profits, the maintenance of production and employment, the availability of real and substantial choice to the purchasers, and the avoidance of waste in selling activities. Different authorities will place different emphasis upon these and other criteria of workable competition; and the notion, designed as it is to reflect the fullness of life, does not have the precision characteristic of the abstract categories of economic analysis.

That progressiveness of technology yields the kind of competition which "counts" has especially been the view of the late Professor J. A. Schumpeter, who visualized effective competition as a process of "creative destruction"—"the competition from the new commodity, the new technology, the new source of supply, the new type of organization (the largest-scale unit of control for instance)—competition which commands a decisive cost or quality advantage and which strikes not at the margins of the profits and the outputs of the existing firms but at their foundations and their very lives. This kind of competition is as much more effective than the other as a bombardment is in comparison with forcing a door, and so much more important that it becomes a matter of comparative indifference whether competition in the ordinary sense functions more or less promptly; the powerful lever that in the long run expands output and brings down prices is in any case made of the other stuff."[27]

There is indeed no doubt that innovation may be a powerful instrument for making competition effective. But innovation, even in as highly progressive an economy as the American one, is not evenly diffused and may leave untouched "formidable positions of market power."[28] In the face of the undeniable existence of such positions as evidenced by many antitrust

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[27] J. A. Schumpeter, *Capitalism, Socialism, and Democracy* (2nd ed.; New York: Harper & Bros., 1947), pp. 84 f.

[28] Edward S. Mason, "The New Competition," *Yale Review*, Vol. XLIII, No. 1 (September, 1953), p. 45.

decisions of the courts, Schumpeter's view, highly suggestive as it is, provides no adequate principle of explanation of the situation. What, then, makes monopoly power persist?

The Persistence of Monopoly Power. Monopoly and oligopoly can only persist when the freedom of entry on the part of newcomers is effectively curtailed. As was noted in Chapter 3, this may happen when monopoly power is based on the ownership of patent rights. More often, however, other factors may make the position of the established concerns so strong that potential newcomers will have little chance of success. Frequently the optimum size of the firm is forbiddingly large; in the face of well-entrenched establishments, a new venture is likely to meet with much scepticism, and access to the capital market will be difficult. In other cases the existing enterprises may enjoy advantages based on experience, integration, location, and control over materials, which are not available to a newcomer.

Sometimes the optimum size of a firm is so large that a number of competing enterprises would be unable to operate at a stable equilibrium. If there is only one such enterprise, its scale of output will fall short of the optimum; and it will set a price in excess of cost. But if there are newcomers, each competitor could only dispose of a smaller output; and this he would have to produce at higher cost. If each were to expand output, costs would decrease; but so large an output might not be at all absorbed by the market or only at prices below cost. Thus in situations like these, monopoly appears as the only way out; and for this reason industries characterized by the described conditions are said to harbor "natural monopolies." Some public utilities and common carriers are considered in this class. The toleration of their monopolistic structure by the public is generally accompanied by regulation. Such toleration, of course, has its limitations. As a rule, it does not imply that the regulated businesses are at liberty to merge with each other, charge discriminatory prices, or restrain trade by collusion or other means.

Countervailing Power. In the foregoing analysis the entry of new sellers is interpreted as the principal check on the persistence of monopoly power. But what about a situation where the monopolistic power of a seller is checked, not by rivals or competitors, but by the market power of a dominant buyer? Traditional economic analysis treated a situation such as this under the heading of "bilateral monopoly" and saw little desirable in it. Under the terms of a more recently developed theory of "countervailing power" the market power of a strong seller will generate a countervailing, or offsetting, market power of a strong buyer, and vice versa. Powerful manufacturers face powerful retailers; big business must deal with big unions; the more highly concentrated industrial sector of the economy finds its complement in an agricultural sector equipped with countervailing power by the government.

However, a strong market position generates countervailing power as

often as it fails to do so; and even if it does, the result more likely is a sharing of the spoils rather than their diffusion among the consumers—as would occur under competition. Countervailing power is no substitute fo competition; and to the extent to which it "checks" monopoly power, th nature and direction of the check is different from that provided by com petitors and rivals. Of great importance is also that the check provided by countervailing power presumably fails to operate during periods of inflation.[29] In a seller's market, when the demand is excessive, the position of the seller is so strong that he can resist the bargaining power of his customers; and these may indeed find it most profitable "to form a coalition with the seller to bring about an agreed division of returns."[30] For an age that is said to be characterized by an inflationary bias, the theory of countervailing power does not even furnish as much as a comforting rationalization.

GUISES AND DISGUISES OF MONOPOLY POWER

Monopoly power manifests itself in various ways. It comes about as a result of collusion and collective action, and it is exercised by means of various business policies. Often the various practices which will be analyzed in this section overlap and can be observed side by side. We will discuss first arrangements that may be called combinations in a wider sense, like trade associations and interlocking directorates, and then turn to the closer types of combinations, holding companies and mergers. Subsequently we will analyze such monopolistic practices as market sharing, price leadership, and price discrimination.

Trade Associations. There are many thousands of trade associations which render various services to their members, promoting their specific interests. While the bulk of their work may not be obnoxious, trade associations often facilitate co-ordination of the price and production policies of their members. The restraint of competition may be cloaked in the form of periodically published trade statistics and price information. These activities are often characterized as safeguards against "destructive competition" or as instrumental in securing "business stability," based on the "voluntary sharing of available business."

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[29] The theory of countervailing power has been developed by John K. Galbraith, *American Capitalism: The Concept of Countervailing Power* (Boston: Houghton Mifflin Co., 1952). For critical appraisals the student is referred to Simon N. Whitney, "Errors in the Concept of Countervailing Power," *Journal of Business of the University of Chicago*, Vol. XXVI, No. 4 (October, 1953), pp. 238–53; Walter Adams, "Competition, Monopoly, and Countervailing Power," *Quarterly Journal of Economics*, Vol. LXVII, No. 4 (November, 1953), pp. 469–92; discussion between Galbraith, George J. Stigler, John P. Miller, and others, *American Economic Review*, Vol. XLIV, No. 2 (May, 1954), pp. 1–34; Arthur Schweitzer, "A Critique of Countervailing Power," *Social Research*, Vol. XXI, No. 3 (Autumn, 1954).

[30] Galbraith, *op. cit.*, p. 136.

Interlocking Directorates. The co-ordination of corporate policies is also facilitated by interlocking directorates. Men of great ability are at a premium in all walks of life. Not infrequently a businessman of unusual ability will find himsef a member of the boards of directors of several corporations. Interlocking directorates are very widespread, although they do not necessarily operate against competition (see Fig. 44). Studies undertaken during the thirties revealed that among the 250 largest corporations of the country there were only 25 which had no director in common with at least one other of the large corporations. One corporation indeed interlocked with no less than 35 others. Altogether, there were some 3,500 directorships on the boards of the 250 corporations, and close to one third of them was held by 400 men. One hundred fifty-one companies were interlocked with at least three other companies in the group. That this practice is not necessarily harmful is borne out by the fact that a considerable section of the corporate directorate is inactive. But in some instances, interlocking directorates may lead to conflicts of interests that are not easy to reconcile.[31]

Integration. Integration may occur in horizontal or vertical direction. Horizontal combinations operate at the same stage of the productive process, while vertical combinations embrace enterprises that work at different stages of production.

One of the most common devices for integration is the holding company, a corporation holding stock in other companies. Standard Oil Company of New Jersey, one of the largest manufacturing corporations in the country, has over 300 subsidiary and affiliated concerns. The 100 largest manufacturing concerns have an average of 35 subsidiaries. The 200 largest have a total of close to 5,000 subsidiaries. More than one third of American corporate stock is owned by other corporations. There may be large networks of holdings, one corporation owning the stocks of others and these, in turn, holding the stocks of still other concerns. The "pyramid" which is thus established facilitates the domination of large corporate empires with the help of relatively small investments. The holding-company device has, on occasion, opened the way to a great variety of abuses and led to intercompany transactions of doubtful propriety. Fraudulent failures of giant holding companies in the public-utility field made the public aware of these dangers and ushered in legal restrictions on this form of integration of utilities. There are, however, a great many highly respectable holding com-

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[31] National Resources Committee, *The Structure of the American Economy*, Part 1 (Washington, D.C.: U.S. Government Printing Office, 1939), p. 158. For more recent data, see Federal Trade Commission, *Report on Interlocking Directorates* (Washington, D.C.: U.S. Government Printing Office, 1951); "Interlocking Directors and Officials of 135 Large Financial Companies of the United States," Part I of a *Preliminary Report of the Select Committee on Small Business*, House of Representatives, 85th Cong., 1st sess., House Report No. 1278 (Washington, D.C.: U.S. Government Printing Office, 1957).

INTERLOCKING RELATIONSHIPS BETWEEN FIRST NATIONAL CITY BANK OF NEW YORK AND MAJOR FINANCIAL COMPANIES, 1956

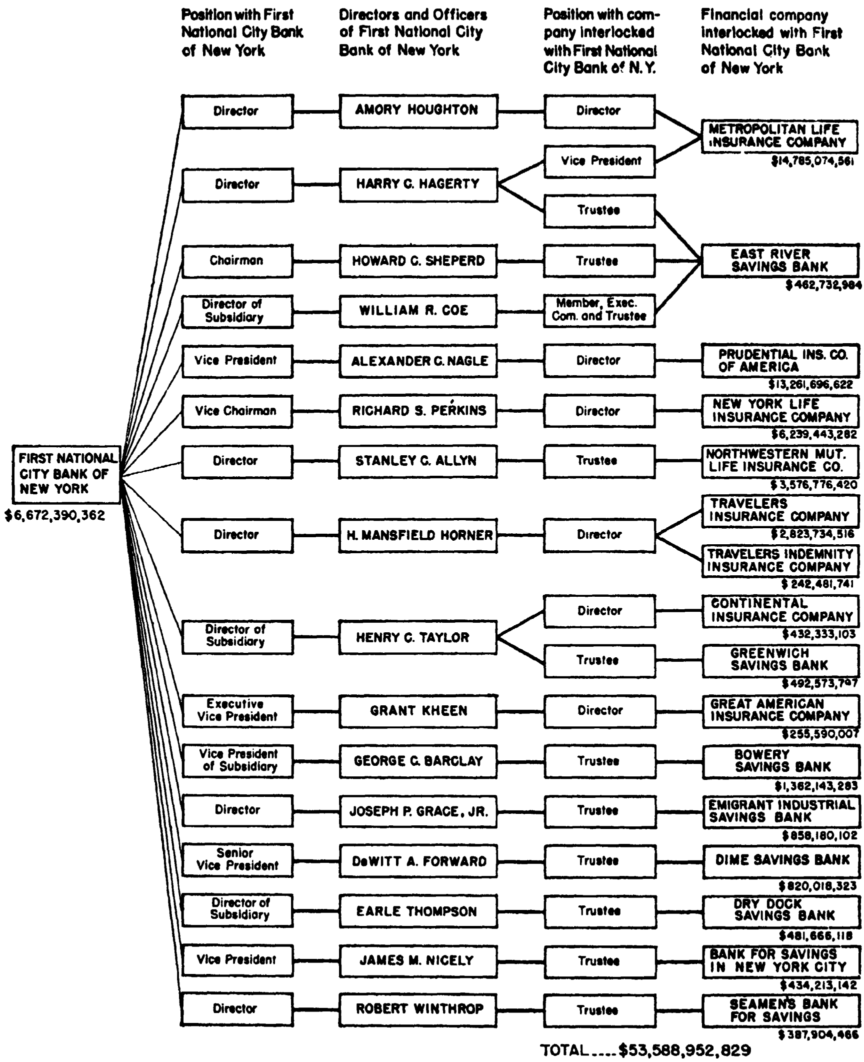

FIG. 44. Interlocking directorates are a feature also of financial corporations. The dollar figures represent deposits for banks and assets for all other financial companies, as of December 31, 1956. From *Final Report of the House Small Business Committee*, 85th Cong., 2nd sess., 1959, p. 24.

panies, such as United States Steel, Standard Oil of New Jersey, American Telephone and Telegraph, the Pennsylvania Railroad, and numerous others.

Mergers. The acquisition of stock is often preparatory to the complete merger or to the purchase of a company's assets by another corporation.

Mergers indeed have become a frequent occurrence, and the merger movement of the 1940's and 1950's parallels that of the prosperous 1920's. While mergers are of great importance, the heyday of the merger movement belongs to an earlier period of American business history. Many of the largest industrial enterprises owe their present leading position in a given industry to a merger that took place at the turn of the century or during the 1920's. "Since then, these firms have not grown relatively faster than their smaller rivals." This observation, as well as other factors—especially the basic fact that technological economies of production can be made at the plant level and do not necessarily require large companies—"hardly point to great differences in efficiency as the chief explanation of the present size distribution of firms. Rather, they indicate the importance of a series of past events in which many factors, including attempts to achieve monopoly and the desire to realize promoters' profits, played an important part."[32]

Many of the mergers of recent years have brought together unrelated businesses, turning the acquiring concern into a sort of investment company, which by means of diversification hopes to earn larger and more stable profits. In other instances the acquiring concern may completely abandon the line of business for which it was known, and turn to fields considered more highly rewarding in the light of changing circumstances. The Pressed Steel Car Co., for example, ceased to manufacture freight cars and instead produced metal goods ranging from oil well equipment to trash cans. In the process it changed its name to U.S. Industries, Inc. Textron American, Inc., originally a textile concern, acquired companies turning out aircraft equipment, movies, cotton batts, pads, and felt, high-precision machinery, bed sheets, generators, plywood, metal fasteners, clothes lines, and many other articles.

The motives for mergers are manifold. The acquiring concern may have retained large amounts of earnings which it desires to put to profitable use. It may wish to be in the position to offer a "full line" of articles for sale. The merger may result in substantial tax savings, especially if one of the concerns involved shows losses which may be utilized to offset the other's gains. On accasion small businesses are sold to create liquid funds with which to pay estate taxes—although since 1958 their payment can be spread over a 10-year period—or to avoid high rates of income tax on dividend income and to incur the more favorable tax liability for capital gains. The owner of a small company may sell because he finds the going too hard or because there is nobody in the family to take over the business.

The merger movement is not limited to manufacturing companies but includes many types of financial institutions, especially banks. In an average year of the 1950's 150 banks were absorbed by others, and during the

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[32] Carl Kaysen, "Looking Around," *Harvard Business Review*, May–June, 1954.

whole decade the number of banks in the country declined by over 10 per cent. While most banks that have disappeared from the scene were relatively small, a few very large banks have also merged, making for increasing financial concentration. Altogether, the merger movement in all fields of business is bound to have important repercussions on the structure of American business in the years ahead, and it is actively discussed by many students of the American economy.[33]

Market Sharing. Monopolistic practices may exist without the surrender of the independence of the participating concerns. For example, often a few large enterprises share a given volume of business in rather stable proportions over long periods of time. Among investment bankers, it is customary not to disturb another concern by soliciting the business of a corporation which is attached to a specific banking house. Moreover, companies may abstain from competing against each other in the purchase of raw materials, as they have done, for example, in the tobacco industry.

Sometimes the market is shared by the allocation of geographically defined sales territories to different firms. These then, in effect, assume the power exercised by the legislator in the form of tariffs. During World War II, market-sharing agreements which American firms had concluded with German concerns caused considerable apprehension, because they had retarded the development of strategic industries outside Germany. One of the most striking examples of such agreements occurred in the optical industry. Both Bausch and Lomb, an American concern, and Carl Zeiss of Germany undertook not to sell in each other's markets. If, for example, the United States military authorities were to manifest interest in Zeiss products, this firm was to make a "protective offer" with a price in excess of the normal charge.[34] The American production of magnesium, an important light metal, was retarded by an agreement between the German dye trust and an American concern, under which the exports of the latter were severely restricted. In the field of aluminum, an international cartel had restricted production in the various countries of Europe. When the Nazi government came to power, Germany insisted on increasing its output of aluminum. This was approved by the other producers, since Germany undertook not

[33] John K. Butters, John Lintner, and William L. Carey, *Effects of Taxation: Corporate Mergers* (Boston: Harvard Business School, Division of Research, 1951); J. Fred Weston, *The Role of Mergers in the Growth of Large Firms* (Berkeley and Los Angeles: University of California Press, 1953); Federal Trade Commission, *Report on Corporate Mergers and Acquisitions* (Washington, D.C.: U.S. Government Printing Office, 1955); Ralph L. Nelson, *Merger Movements in American Industry, 1895–1956* (Princeton, N.J.: Princeton University Press, 1959); Royal Little (Chairman, Textron American, Inc.), "Why Companies Sell Out," *Fortune*, February, 1956, pp. 117 ff.

[34] Corwin D. Edwards, "Economic and Political Aspects of International Cartels," Senate Committee on Military Affairs, Subcommittee on War Mobilization (78th Cong., 2nd sess.) Monograph No. 1 (Washington, D.C.: U.S. Government Printing Office, 1944), p. 61. There are many other instances of similar agreements quoted in this source.

to disturb the price situation by stepping up her net exports. As a result of these deals, Germany's share in the world output rose from 13 per cent in 1933 to 31 per cent in 1938. During the same period the United States' share fell from 27 to 23 per cent.[35]

Price Leadership. Price leadership often prevails when a field of business is dominated by one or a few large enterprises. Smaller firms then may find it convenient to follow the leader in their price policy. In this they may be inspired by fear that independent action would call forth reprisals on the part of the leader, or they may find it profitable to seek refuge under the "price umbrella" established by him. John R. Hicks, a brilliant British economist, once said, "The best of all monopoly profits is a quiet life." Examples of price leadership are legion. It was found to exist in the steel industry, with United States Steel holding the lead, in the tinplate, cement, agricultural implements, petroleum, copper, lead, newsprint, paper, and glass container industries.

Price leadership may be the outcome of highly informal arrangements, such as, for example, the celebrated "Gary dinners" which took place during the early years of the present century. On the occasion of these dinners, Judge Gary, the chairman of the board of directors of the United States Steel Corporation, joined other leaders of the industry in a friendly interchange of ideas designed to bring to an end "unreasonable and destructive competition." The success of the dinners can be appraised in the light of an inspired ditty turned out by one of the diners:[36]

> The melancholy days have gone,
> We're feeling light and airy,
> We're not a-cussing anyone
> But just a-blessing Gary.

Often the arrangements resulting in price leadership are rather subtle, leaving it to the members of the industry to select market leaders. The latter may differ in the various regions of the country in accordance with the local or regional strength of the most prominent concerns in the industry. This is the situation, for example, in gasoline pricing. Sometimes leadership is differentiated productwise rather than by regions. This has been observed, for example, in the chemical industry, where the same company acts as a leader with respect to certain products in which its position is an especially strong one and as a follower with respect to others.

Price leadership has been characterized as a feature of well-established and mature industries, although others may practice it also. If a rival's reactions can be foreseen—that is, if he will follow the leader—the business

[35] Charlotte F. Muller, *Light Metals Monopoly* (New York: Columbia University Press, 1946), pp. 144 f.

[36] Cited by Arthur R. Burns, *The Decline of Competition* (New York: McGraw-Hill Book Co., Inc., 1936), p. 78.

is freed from many uncertainties. There is some evidence indicating that the practice seems to be more conspicuous during periods of rising prices than when prices fall. Often the weaker members of an industry are compelled to let their prices go down ahead of the stronger member, who in such a situation might become their follower rather than stay as a leader.

Price leadership has, on occasion, been defended as being productive of the very situation which is said to be the characteristic of competitive industry: uniformity of prices. Obviously, however, the uniform price brought about by price leadership is the result of a decision not to compete rather than of competition.

Price Discrimination. Price discrimination is a manifestation of monopoly power but not necessarily of size. It occurs when various buyers of the same class of commodity or service are charged different prices. There may be discrimination against certain types of users of the commodity, or against buyers who purchase only small quantities, or against those who are located at certain places. Price discrimination can be practiced only if the markets in which the various transactions take place are separated from each other. The product that is sold must be of such nature that the purchaser in whose favor discrimination operates cannot easily resell it. Discrimination is profitable to the seller if he charges a high price in the market where demand is least elastic and a low price to those buyers whose demand is more elastic.

A number of instances of differential pricing have come to be accepted by the public and are not considered obnoxious. During the operation of the food stamp plan the federal government itself caused, in effect, a reduction of the prices charged to the poor below the general level. Physicians often charge fees that are differentiated according to the patient's income. Rates of public utilities vary with the users and the quantities purchased. Milk is sold at a higher price to the consumer than to the processor who manufactures butter and cheese. Railroad rates are differentiated on the basis of complicated schemes, with such criteria as the length of the haul, the direction, and the bulk of the freight. In some of these examples, price or rate differentials correspond fully to differences in marginal cost. Such cases are not regarded as discriminatory.

Sometimes it is found that the domestic market is less elastic than the foreign, where competition may be more active. Price discrimination in favor of the foreign purchaser, practiced under such circumstances, is called dumping. The exportation of commodities at prices below those charged in the home market is occasionally encouraged by public policy. A case in point is the subsidization of cotton exports by the United States.

In a few instances, price discrimination may facilitate a more economical scale of operations with the result that the higher ones of the discriminatory prices are still lower than a uniform price could be in the absence of discrimination. This is one of the factors which explain the toler-

ation or encouragement of certain types of price discrimination by the public.

Price discrimination may not only be used by established monopolists, but it may also serve as a weapon in the fight for the attainment of monopoly power. In this role it has been prominent in the past, when conditions were more unsettled and the positions of great concerns had not yet been consolidated. Competitors were ruined by price wars in which the aggressor charged disastrously low prices to the customers of the victim. In another form, price discrimination was practiced by charging prospective competitors prohibitive prices for indispensable raw materials. Under still other conditions, aspirants for monopoly power saw to it that rivals had to pay discriminatory charges for services which they themselves obtained at discounts. American industrial history is characterized by many instances of this kind, which were often the first step in a distinguished business career.

The basing-point system of pricing is a form of geographical price discrimination that has done much to retard the economic development of the South and the West. This system was practiced by the steel industry for many years, and similar systems of "delivered" prices were applied by the cement and a number of other industries. Originally the basing-point system was based on the price of steel in Pittsburgh, which, plus freight from Pittsburgh to destination, was charged to every purchaser of steel in the country, regardless of where he was located and where he bought his steel. Under this arrangement, which was referred to as "Pittsburgh-plus," the Pittsburgh steelmasters were able to sell steel in every market of the country at the same price which a producer located in the vicinity of the user would have charged. Public policy was instrumental in pressing for the abandonment of this system some decades ago, when it was replaced by a system of multiple basing points. These were located in various regions of the country, and their number gradually increased to ninety. Any purchaser of steel, wherever he may have been located, was charged the lowest sum of two components: a basing-point price and freight charge from the basing point to destination. The uniform price which producers charged under this arrangement eliminated the natural advantages which go with proximity of location. Buyers had no inducement to purchase from nearby mills, since the delivered cost of the product, when bought from these, was as high as the delivered cost of products bought from distant suppliers. The delivered price was such as to enable the nearby seller to reap "phantom freight," whereas a distant seller had to "absorb" freight.

Eventually the Supreme Court held that the delivered-price system employed in the cement industry was an unfair trade practice which the Federal Trade Commission might suppress.[37] In the summer of 1948,

[37] *Federal Trade Commission v. Cement Institute*, 333 U.S. 683 (1948).

shortly thereafter, the United States Steel Corporation announced that its steel-producing subsidiaries would abandon the basing-point system of delivered prices and shift to an F.O.B. system. This was followed by similar announcements of other leading steel producers. Efforts were undertaken, however, to impress Congress with the need for legislation legalizing the basing-point system. A bill, permitting a seller, "acting independently, to quote or sell at delivered prices or to absorb freight," was passed by Congress but vetoed by the President, because legislation such as this would be liable to encourage individuals to resume the unfair trade practices. Indeed the revised pricing practices now prevailing in various industries are in their substance not significantly different from the outlawed basing-point system. In the aluminum industry, for example, firms label their sales as F.O.B. shipping point, but actually this designation only refers to the transfer to the buyer of the risk of loss in transit, not to the method of calculating the price, which resembles a delivered one.[38] In the steel industry it has become a common practice for each geographically separate mill to quote a local F.O.B. price for nearby sales and then to reduce its mill-net price on distant sales (by absorbing freight) to meet the delivered prices of distant sellers. When a seller shrinks his mill-net price to match the delivered price of another mill, he actually is quoting a "combination price," which is the sum of (*a*) the base price of another mill plus (*b*) the freight from that mill to the buyer's destination. This is the essence of basing-point pricing, which has been resuscitated in the described fashion. Nobody can say whether it will be allowed to stay.

The elimination of outright basing-point pricing might have far-reaching consequences on the location of industries. The old, established centers of steel production may find themselves at a disadvantage, since they produce steel in excess of regional fabricating requirements. Already they are reported to have launched drives to attract more fabricators. The steel industry might find greater decentralization advantageous, a trend which is supported also by technological factors and which since mid-1948 has led to the installation of new steel production facilities near the consuming markets rather than in the vicinity of the sources of raw materials. The old centers of steel production find themselves threatened also by the shifts due to growing reliance on iron ore imports from new sources in Canada and from South America.

These changes, in conjunction with the ill repute of outright basing-point pricing, begin to have their effects. For many years, United States Steel's principal steel production facilities in the East were located in the Pittsburgh region. In 1949, plans were made public calling for the construction of a large steel mill in Morrisville, Pennsylvania, in the vicinity of

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[38] "Aluminum Industry," *Hearings* before the Subcommittee No. 3 of the House Small Business Committee, 85th Cong., 1st and 2nd sess. (Washington, D.C.. U.S. Government Printing Office, 1958), pp. 52 f.

Trenton, New Jersey. This new plant enables United States Steel to compete in the Eastern seaboard under a system of F.O.B. pricing, much more so than this was possible when steel had to be shipped from Pittsburgh or Youngstown. Freight charges for steel shipped from Pittsburgh to New York are almost three times those from Morrisville to New York; charges for shipments from Pittsburgh to Philadelphia are almost five times those from Morrisville to Philadelphia.

The rising prominence of new regions in steel production is illustrated also by the expansion of the facilities of Bethlehem Steel in Johnstown, Pennsylvania; Sparrows Point, near Baltimore, Maryland, the second largest steel mill of the world; and Buffalo, New York, where also the Ford Motor Company is constructing a plant to utilize nearby sources of steel. National Steel has located a mill near Camden, New Jersey. The eastward movement of the steel industry, it is hoped, will eventually also bring a steel mill to New England.

ANTITRUST AND RELATED LEGISLATION

The American people have at all times watched the concentration of economic power with apprehension and distrust. Throughout the years the platforms of both parties have contained resounding denunciations of monopoly and monopoly power. Books are published every year, calling for decentralization of business or for the placement of a ceiling on its size. The spirit of a large sector of the American public is well illustrated by the title of one of Justice Brandeis' books, *The Curse of Bigness*. However, in spite of all protestations and measures of public policy, the evidence assembled in the preceding pages demonstrates an enormous advance in the concentration of economic control. In part this reflects the simultaneous diffusion of wealth. Corporate business has facilitated a wide distribution of ownership in the form of stocks, but it has also relieved the owners from responsibility and control.

Those who plead for decentralization and limitation of size tend to forget that the elimination of monopoly and oligopoly would often entail the surrender of the advantages of scale—not necessarily of the scale of a single plant, however. In many instances the alternative choice is not one between oligopoly or competition among the same concerns, but between oligopoly among a few large, efficient enterprises or competition among a multiplicity of small, less efficient units. If the difference in efficiency is small, consumers are likely to benefit more from the more competitive situation. If firms are monopolistic the economies of large-scale production are not always passed on to the consumer in the form of lower prices. Hence, only if centralization entails large differences in efficiency is the consumer apt to benefit from it. In those cases the plea for breaking up corporate empires would have to be based on extraeconomic considerations.

Economic losses would have to be weighed against political and other gains derived from dispersion of power.

Aid to Small Business. In a positive, but not overly effective fashion, some public policies aim at the direct support of small business. In the past, such support was provided in a less-systematic fashion but with great success in individual cases, eliminating monopoly and reducing concentration in certain key industries. The Reconstruction Finance Corporation, a federally owned organization, facilitated the entry of new firms into aluminum, steel, and automobile production. Its successor, the Small Business Administration, has a comprehensive program of aid to small business as defined above, p. 351. It renders assistance in obtaining government contracts, aids the management of small firms through education and advice, provides funds for regional and local development, and grants short-term loans at a maximum interest rate of 5½ per cent to small business. The lending capacity of the Small Business Administration has been raised from time to time, and from 1953 to 1960 the total amount of its loans came close to $1 billion, distributed among some 20,000 firms. Since 1958 a program facilitating long-term loans to small businesses has been under way, with the Small Business Administration licensing so-called "small business investment companies" and granting loans to them. After two years some 80 of such companies have been established, the great bulk by banks and other financial institutions, and they have invested about $10 million in small firms. The small business investment companies and their stockholders enjoy certain tax privileges, and so does small business in general under legislation approved in 1958.

Apart from this, there is a well-established program of government action against monopolies and monopolistic combinations, which during the long years of its existence has eliminated some of the most obnoxious manifestations of monopoly power. The relevant acts are the Sherman Act of 1890, the Clayton Act of 1914, and the Federal Trade Commission Act of the same year.

The Sherman Act. The Sherman Act of 1890 declares illegal "every combination in the form of trust or otherwise, or conspiracy, in restraint of trade or commerce among the several States, or with foreign nations," and threatens a violator with punishment. It also imposes penalties on "every person who shall monopolize, or attempt to monopolize, or combine or conspire with any other person or persons, to monopolize any part of the trade or commerce among the several States, or with foreign nations." Two unlawful situations are thus distinguished: combinations in restraint of trade and attempts to monopolize.

Since the Act has been in force over a period of more than seventy years, its interpretation must proceed on the basis of the numerous cases heard by the Supreme Court. Even so, it is not easy to determine exactly the scope of the two concepts formulated by the Sherman Act. Restraint of

trade is generally considered the more inclusive term; it applies to combinations of independent concerns, while the "attempt to monopolize" primarily refers to mergers and consolidations. Monopoly, in the context of the law, is considered to be a species of restraint of trade.[39]

Originally the Supreme Court had given the Act an extremely restrictive interpretation. In the first antitrust case to reach the tribunal, it had held that manufacturing combinations did not violate the Act as the latter applied only to "commerce."[40] This view did not persist, however.

In language of the Act, "every" combination in restraint of trade is unlawful. But in subsequent decisions, it was held that restraint of trade at common law referred only to unreasonable restrictions of competition as applied to mergers: a reasonable restraint was no restraint at all. This interpretation was applied to the statute; it is known under the name of "rule of reason."[41]

The rule of reason notwithstanding, price-fixing agreements generally are considered unlawful, even though the price thus determined might be reasonable.[42] Manipulation of the market price is illegal, whether it is done by buyers or by sellers, and whether it aims at higher or lower prices.[43] Illegal also are agreements designed to control output[44] or to divide the market.[45] The collection and dissemination of trade statistics by trade associations may violate the Sherman Act if such activities result in adherence to filed prices.[46]

It was held some years ago in a famous decision that the mere size of a corporation does not entail a violation of the Act and that the existence of uniform prices or of price leadership does not in itself constitute an offense.[47] The antitrust laws thus did not bar one of the most common monopolistic practices, unless there was overt collusion. On the whole the Sherman Act, as interpreted in the older decisions of the courts, was more concerned with the improper exercise of monopoly power than with its mere existence.[48] In the decisions of merger and consolidation cases, the element most emphasized was the intent to monopolize.[49]

A few court decisions passed in recent years may possibly widen the scope of the Sherman Act. In a case decided by a Circuit Court of Appeals the dictum that size is not an offense was, in effect, reversed. The Court

[39] *United States* v. *Socony-Vacuum Oil Co.*, 310 U.S. 150 (1940).

[40] *United States* v. *E. C. Knight Co.*, 196 U.S. 1 (1895).

[41] *Standard Oil Co. of New Jersey* v. *United States*, 221 U.S. 1 (1911); *United States* v. *American Tobacco Co.*, 221 U.S. 106 (1911).

[42] *United States* v. *Trenton Potteries Co.*, 273 U.S. 392 (1927).

[43] *Swift & Co.* v. *United States*, 196 U.S. 375 (1905).

[44] *American Column & Lumber Co.* v. *United States*, 257 U.S. 377 (1921).

[45] *Addyston Pipe & Steel Co.* v. *United States*, 175 U.S. 211 (1899).

[46] *United States* v. *Sugar Institute, Inc.*, 297 U.S. 553 (1936).

[47] *United States* v. *United States Steel Corp.*, 251 U.S. 417 (1920).

[48] *United States* v. *International Harvester Co.*, 274 U.S. 693 (1927).

[49] *Standard Oil Co. of New Jersey* v. *United States*, 221 U.S. 1 (1911).

held that a company which manufactures or sells over 90 per cent of a commodity has monopoly power within the meaning of the Sherman Act, even though it may not abuse such power. In a case such as this, monopoly power and its exercise coalesce.[50] This decision was approved by the Supreme Court when this tribunal, in another case, held three leading tobacco companies guilty of monopolization on the basis of their power and intent to exclude competitors, regardless of actual exclusion.[51]

An intent of this sort, the Court held in another case, is a significant test of the violation of the law only when the actual exclusion of other business firms is not achieved. When monopoly results from the acts done by the monopolist, the intent is inferred.[52] The Court also has said that the defendant's share of the market is not an exclusive test of his power to exclude to competitors. There may be other tests based on strategic factors peculiar to a given market.[53] For example, in a case in which a group of refiners had acquired control over commerce in sugar beets grown in a part of northern California, the Court disregarded the question of the refiners' percentage control over the nation's sugar beets—which would have been less than 25 per cent or thereabouts—as being irrelevant "so long as control is exercized effectively in the area concerned."[54]

Exemptions from the Sherman Act. A number of transactions and certain monopolies are exempt from the application of the Sherman Act. Specified combinations in the transportation field are legalized if proper authorization from the Interstate Commerce Commission has been secured. Under the terms of legislation adopted in 1914, labor unions are not to be considered illegal combinations in restraint of trade. A similar privilege was extended to agricultural co-operatives and other farm organizations. But labor unions as well as agricultural organizations are liable to prosecution if they conspire with nonexempt groups or coerce them and if this results in a trade restraint. The Webb-Pomerene Act of 1918 made it lawful for combinations of exporters to restrain trade in foreign markets but provides for some measure of supervision of the activities of such combinations. The Miller-Tydings Act of 1937 upholds the lawfulness of vertical resale price-maintenance agreements, provided they are lawful in the state where the resale is to be transacted.[55] Both the Webb-Pomerene and the Miller-Tydings Acts have often been exposed to attacks. The former removes the

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[50] *United States* v. *Aluminum Company of America*, 148 F. (2d) 416 (1945).

[51] *American Tobacco Company* v. *United States*, 328 U.S. 781 (1946). These cases are discussed in Eugene V. Rostow, *A National Policy for the Oil Industry* (New Haven: Yale University Press, 1948); Wendell Berge, "Problems of Enforcement and Interpretation of the Sherman Act," *American Economic Review*, Vol. XXXVIII, No. 2 (May, 1948), pp. 172–81.

[52] *United States* v. *Griffith*, 334 U.S. 100 (1948).

[53] *United States* v. *Paramount Pictures*, 334 U.S. 131 (1948).

[54] *Mandeville Farms* v. *Sugar Co.*, 334 U.S. 219 (1948).

[55] For a more complete discussion of fair trade legislation under the Miller-Tydings Act, see above, pp. 143 ff.

stigma of illegality from exploitation if a foreigner is to be its victim. The principal excuse for the Act is the fact that it seems of limited practical importance.

While not exempt from the antitrust laws in any strict sense, the regulated companies in the field of transportation, communication and public utilities—see Chapter 17, below—are in a privileged position since they frequently have been able to avoid prosecution under the antitrust laws, which in principle are applicable to them. This situation has arisen in consequence of the judicial doctrine of "primary jurisdiction," under which the federal courts have frequently refused to decide antitrust suits against members of regulated industries, referring instead such cases to the regulatory agencies for preliminary decision. However, these agencies are not primarily concerned with economic concentration. They often act as if they were the watchdog of the regulated industry's interest rather than of that of the public, and their record in protecting the public is inferior to that of the authorities in charge of the enforcement of the antitrust laws, to be considered forthwith. Hence, the doctrine of primary jurisdiction has opened up a dangerous gap in the universal enforcement of the antitrust laws, and has created what in its effects comes close to an extralegal exemption from these laws. In many instances, however, the antitrust authorities have successfully challenged under the antitrust laws actions that were approved by the regulatory authorities, although the courts often make them wait until the latter have acted.[56]

Enforcement of the Sherman Act. Private suits for triple damages may be brought by parties injured by violations of the antitrust laws, and many such suits are filed every year—more than 1,000 in the six-year period from 1951 to 1956. Because of the deterrent value of private recoveries, these suits are considered a valuable adjunct of government action, which lies with the antitrust division of the Department of Justice. Antitrust proceedings may assume the form of a criminal action or of a civil suit. The criminal procedure will be selected if the violator committed a "predatory action." If successful, it results in punishment of the guilty with a fine not exceeding $50,000, or imprisonment of not more than a year, or both. The civil suit is designed to prevent and restrain violations. The court may either issue an injunction restraining the violator from certain acts—if he then commits them nevertheless, he becomes guilty of contempt of court—or

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[56] See "Judicial Doctrine of Primary Jurisdiction as Applied in Antitrust Suits," House Committee on the Judiciary, *Staff Report* to Subcommittee No. 5, 84th Cong., 2nd sess. (Washington, D.C.: U.S. Government Printing Office, 1957). In a notable case involving the merger of two banks, which had been approved by the Federal Reserve Board, the Supreme Court upheld the right of the Department of Justice to start proceedings under the antitrust laws, notwithstanding the Federal Reserve Board's approval of the transaction. See *United States* v. *Firstamerica Corporation*, 361 U.S. 928 (1960).

the court may try to "unscramble the eggs" by restoring conditions of competition. Such "atomization" of combinations or monopolies generally is only moderately successful. If the violator is a holding company the distribution of its shares in subsidiary companies among its stockholders rarely restores competition. Courts have declined to insist on the sale of such stock to the public at large.

Frequently antitrust suits are terminated by a consent decree, the result of negotiations between the Attorney General and the defendant, which relieves both parties from the necessity to follow the more elaborate procedures outlined above. Violation of the consent decree is punishable as contempt of court. Consent decrees have occasionally come under fire as manifestations of undue favoritism to the defendants concerned. Unlike final court decisions of the ordinary variety, they can not be used as prima-facie evidence of wrongdoing in supplementary private suits for triple damages.

The number of cases instituted by the antitrust division each year is subject to considerable variations. Altogether, 1,468 antitrust suits are recorded from 1890 to 1959, more than one-half dating from the last twenty years. During the past few years the number of new cases was 62 in the fiscal year of 1959, 54 in 1958, 55 in 1957, 48 in 1956, and 47 in 1955. The all-time peak was reached with 114 cases in 1940, when Thurman Arnold was assistant attorney general in charge of the antitrust division. At times, the largest corporations have formed a sizable portion of the roster of defendants, but in recent years many suits have been instituted against smaller concerns. The number of cases which the antitrust division can take up depends upon its appropriation, now in the neighborhood of $5 million a year, of which about $1 million is recovered through fines. There is an average work load of about one hundred pending cases a year, which is taken care of by some 250 attorneys and a small number of economists. Prosecutions are expensive since they often require elaborate investigations and detailed preparation by experts. Many an antitrust suit costs the division more than $100,000. The amount of money which some defendants are able to disburse in such litigations is often out of all proportion to the resources of the antitrust division. President Theodore Roosevelt's famous trust-busting campaign was fought by seven lawyers and four stenographers. Sometimes the number of attorneys representing large corporate organizations is a multiple of the prosecuting staff. In one important case the defendant corporation spent the equivalent of the entire annual appropriation of the antitrust division. Greater liberality of appropriations might facilitate more vigorous enforcement, provided a sufficient number of able attorneys can be found to staff the agency at a salary that reaches a top at about $15,000, a small fraction of the amount a good antitrust lawyer in private practice can earn.

The Clayton Act. The Clayton Act of 1914, designed to implement the Sherman Act, has proved relatively ineffective for many years but of late has assumed much greater importance. The Act contains numerous provisions that are of no relevance in this context. In the antitrust field, it expressly prohibits price discrimination, tying clauses, and exclusive dealing agreements, if they lessen competition substantially or tend toward monopoly. It also contains provisions dealing with holding companies, mergers, and interlocking directorates.

Price discrimination, to begin with, does not comprise a situation where a seller charges his buyers different prices which reflect differences in cost. This would make it possible for chain stores and similar establishments which purchase goods in large bulk to obtain quantity discounts from their sellers. Possibilities of this sort have, however, been curtailed by the Robinson-Patman Act of 1936, also known as antichain store act, which amends the Clayton Act and authorizes the Federal Trade Commission to place limits on quantity discounts. Genuine price discrimination—that is, price differentials not based on different costs—is outlawed by the Clayton Act when it has the effect of reducing competition substantially, of creating a monopoly, or of preventing competition with any person who grants or knowingly receives the benefit of such discrimination. In a recent decision the Supreme Court, however, has established the rule that it is a complete defense for a seller who is charged with price discrimination to show that the price differential has been made in good faith to meet the equally low price of a competitor.[57] In this decision the Court reaffirmed an earlier finding that a seller is not acting in good faith when he simply adopts *in toto* the unlawful pricing system of a competitor.[58] As regards a buyer who is charged with forcing a seller to grant him a discriminatory discount under threat of withdrawal of business, the burden of proof that the discount was discriminatory—that is, not justified by differences in cost—and that the buyer was aware of the discriminatory nature of the discount has been placed on the plaintiff, relieving the accused concern from a laborious defense.[59] Court decisions such as this one and the one in the Standard Oil of Indiana case (footnote 57) have made the enforcement of the antidiscrimination provisions of the Clayton Act a difficult matter.

The Clayton Act also outlaws tying clauses. Such clauses have been found objectionable, especially in the shoe machinery industry. There a producer of indispensable equipment refused to sell it, making it available only on a rental basis. The lease required that the lessee also obtain other

[57] *Standard Oil Company of Indiana* v. *Federal Trade Commission*, 340 U.S. 231 (1951).

[58] *Federal Trade Commission* v. *A. E. Staley Manufacturing Co.*, 324 U.S. 746 (1945).

[59] *Automatic Canteen Company of America* v. *Federal Trade Commission*, 346 U.S. 61 (1953).

equipment from the lessor.[60] Exclusive dealing arrangements, under which a distributor agrees to handle only the products of a specific manufacturer are unlawful, like the tying agreements, only if they lessen competition substantially or tend toward monopoly. Thus, if sellers are numerous the practice would not seem to violate the law. Exclusive dealing arrangements between a manufacturer and independent dealers often are an alternative to the manufacturer's taking over the retail outlets and having them operated by the dealers as his agents. In this case, their dependence upon the manufacturer would, presumably, be still more pronounced than under exclusive dealing arrangements. However, in a recent decision the majority of the Supreme Court outlawed exclusive supply contracts made by an oil company and independent gasoline dealers. This decision is likely to be a two-edged sword, since it enables the company, in the opinion of a minority of the Court, to establish "service station empires" with the help of the agency device.[61]

The Act imposes restrictions on interlocking directorates, provided the business of the interlocked companies is such that "the elimination of competition by agreement between them" would constitute a violation of the antitrust laws. This provisions has had little effect. It does not restrain a person from owning stocks of competing corporations, or from being a director of one and an officer of another, or from holding a controlling interest in one and being the director of another. As the Federal Trade Commission has observed, "the rule does not apply to interlocking directorates among small corporations. It leaves unchallenged interlocking directorates between corporations, both large and small, that have not been competitors in the past but might become so in the future; between corporations that are related to each other as seller and buyer; and between industrial and commercial corporations and financial institutions or common carriers. The reduction of competition that exists or has existed between relatively large interlocked corporations is the only danger that the rule seeks to avert."[62]

Mergers under the Clayton Act. Corporate acquisitions of other companies' stocks are likewise outlawed by the Clayton Act, and the same reservation which is found in the other provisions—substantial reduction

[60] *United States* v. *United Shoe Machinery Co. et al.*, 247 U.S. 32 (1918); *United Shoe Machinery Co. et al.* v. *United States*, 258 U.S. 452 (1922); *Henry* v. *A. B. Dick Co.*, 224 U.S. 1 (1912).

[61] *Standard Oil Company of California* v. *United States*, 337 U.S. 293 (1949). On related matters see also Vernon A. Mund, "The Right to Buy—and Its Denial to Small Business," *Report* prepared for the Senate Committee on Small Business, 85th Cong., 1st sess., Senate Document No. 32 (Washington, D.C.: U.S. Government Printing Office, 1957).

[62] Federal Trade Commission, *Report on Interlocking Directorates* (Washington, D.C.: U.S. Government Printing Office, 1951), p. 10.

of competition or monopolistic tendency—is attached also to this one.[63] The prohibition (Section 7) remained a dead letter until the late 1950's but in recent years it has become the basis for vigorous and successful antitrust action. The provision was ineffective for so long because, once a corporation has bought the stock of a competitor and has used its control by transferring to it the competing corporation's assets, the Supreme Court was apt to order merely that the company divest itself of its valueless holdings of the acquired stock.[64] In the light of this interpretation, a holding company could easily evade the purpose of the law. Moreover, until 1950, an interested party could still attain the desired concentration by the outright purchase of another corporation's assets instead of acquiring its stock. Such purchases of assets were included in the prohibition of the Clayton Act only in 1950, when Congress passed the Celler-Kefauver Act amending the Clayton Act.

The antimerger provisions of the Clayton Act assumed overwhelming importance in 1957 when the Supreme Court applied it to the Du Pont Company's acquisition, some 40 years earlier, of 23 per cent of the stock of General Motors.[65] The significance of this decision arises from three factors. First and foremost, it means that the antitrust authorities can look into stock acquisitions that have happened many years ago without at that time having tended to lessen competition. This possibility will enforce restraint upon companies that intend to merge or acquire other companies' stock. Second, in this decision Section 7 of the Clayton Act was for the first time applied to a vertical combination between a supplier and a customer rather than to a horizontal one between two competing firms. Vertical combinations had specifically been included in the prohibition of Section 7 by the 1950 amendments to the Clayton Act, the belief having been widespread that the original act did not cover them. Third, the Court held that the "relevant market" with respect to the lessening of competition was the automobile industry's demand for paint and fabric, although it constitutes only a small part of the total demand for these products.

Section 7 was tested again in the following year in a case involving the intended merger of the country's second and fifth largest steel producers, a case that in terms of assets involved was the largest antimerger suit ever brought under this law. Here the antitrust division won in the District

[63] There are special laws designed to cope with concentration in banking, which has become more pronounced lately. In 1956 there was passed the Bank Holding Company Act and in 1960 the Bank Merger Act. If the surviving institution is a national bank, the merger requires approval of the Controller of the Currency, who must seek advice on the competitive aspects of the acquisition from the Federal Deposit Insurance Corporation, the Federal Reserve Board, and the Attorney General. In addition there may be required the approval of the state banking authorities.

[64] *Federal Trade Commission* v. *Western Meat Co.; Thatcher Mfg. Co.* v. *Federal Trade Commission; Swift & Co.* v. *Federal Trade Commission*, 272 U.S. 554 (1926).

[65] *United States* v. *E. I. Du Pont de Nemours and Company*, 353 U.S. 586 (1957).

Court, and no appeal was launched.[66] Since then the antitrust division has initiated a more comprehensive program of prosecutions under Section 7. The issues involved in merger cases are more clear-cut, and they are more easily tried, than the more complex proceedings under the Sherman Act. Ten suits were started under Section 7 in 1959, more than ever before.[67]

The Federal Trade Commission Act of 1914. Prosecutions under the Sherman Act are under the jurisdiction of the Department of Justice. Antitrust work under the Clayton Act is carried on also by the Department of Justice as well as by the Federal Trade Commission. Under the Federal Trade Commission Act of 1914, the Commission is given the additional function of prosecuting "unfair methods of competition," that is, in the main, deceptive practices. The Commission devotes about 60 per cent of its resources to the latter function, and 40 per cent to antitrust work.

Although deceptive practices, mainly in the form of false advertising and fictitious price claims, constitute the principal cases prosecuted as unfair methods of competition, the Commission also has found fault with such practices as lotteries, commercial bribery, and oppressive tactics applied to competitors—disparagement, espionage, inducement to contract violations, threats of litigation made in bad faith, etc.

The agency's Bureau of Economics has prepared numerous studies and surveys which often have provided guidance for the work of the Commission. The latest of these studies is a comprehensive investigation of food distribution, made public in 1960. This study reveals that 100,000 single-unit grocery stores have gone out of business from 1948 to 1958, and that the share of corporate food chains in the industry's sales has risen from 29 per cent to 38 per cent during the same period. Sixty per cent of this growth was the result of the opening of new stores, 20 per cent came from buying out other retailers, and another 20 per cent from increasing sales of stores already in operation.

In line with the policy of the antitrust division, the Commission has in recent years given increasing attention to corporate mergers and acquisitions under Section 7 of the Clayton Act. The Commission makes a systematic study of newspapers, trade journals, and other sources of information, and extracts information concerning mergers from them. The relevant data for each merger are assembled and each case so recorded—about 1,000 per year—is examined by project attorneys who decide whether further investigation is warranted. The Commission sponsors a premerger clearance procedure, under which interested parties may secure information as to

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[66] *United States* v. *Bethlehem Steel Corporation and The Youngstown Sheet and Tube Company*, 168 F. Supp. 576 (S.D. N.Y. 1958).

[67] For interpretive comment on this, see "Mergers on Trial," *Economist*, February 20, 1960, pp. 747 ff.; Richard Austin Smith, "What Antitrust Means under Mr. Bicks," *Fortune*, March, 1960, pp. 120 ff.; David Dale Martin, *Mergers and the Clayton Act*, Los Angeles, Calif., University of California Press, 1960.

whether the consummation of the merger would result in further action by the Commission. There were 22 merger cases in litigation in 1959.

If the Commission observes an unlawful act, it will seek to obtain voluntary compliance with the law or start a procedure culminating in the issue of a cease-and-desist order. Such an order may be appealed within 60 days. If no court review is sought within this period, the order becomes final and violators are subject to penalties up to $5,000 for each violation. In cases relating to misleading advertising of food, drugs, and cosmetics, the ordinary procedure before the Commission may be supplemented by criminal suits and injunctions.

Since the regular proceedings before the Commission take much time and effort, additional methods were developed over the years, designed to expedite the work of the agency. Enterprises that are cited for unlawful acts may sign a so-called "stipulation," promising the discontinuation of the censured practice. Still another device is the trade-practice conference, in which rules of fair competition are formulated by the representatives of a specific industry.

The effectiveness of the work of the Federal Trade Commission is hampered by the lack of adequate machinery to check on the compliance with its decisions. There are outstanding hundreds of trade-practice rules, and many thousands of stipulations and cease-and-desist orders. In most of these cases the Commission does not know with any degree of certainty whether there is continued compliance. Checks are made only on receipt of complaints from the outside.

The Commission is a quasi-judicial tribunal, composed of presidential appointees. It has some 700 employees, about the same number it had in 1918. Annual appropriations are some $7.5 million, $3 to $7 million less than it has on occasion requested. Its procedures have in the past often been criticized as overly lenient. Trade-practice conferences may easily turn into a cloak for collusive action. As their resolutions are not mandatory upon the members of the industry, the usefulness of this institution may well be in doubt.

Current Legislative Proposals. The most comprehensive congressional investigation of the concentration of economic power was sponsored in 1938, when Congress passed a joint resolution creating the Temporary National Economic Committee. The work of this body, which was headed by Senator Joseph C. O'Mahoney from Wyoming, included extensive Hearings and a series of Monographs prepared by various government agencies. In its Final Report, which still makes worthwhile reading, the Committee formulated a number of recommendations designed to stem the tide of economic concentration. Other pertinent recommendations have been incorporated in various bills introduced in Congress. Also important work is being done by the Small Business Committee of the House of Representatives, headed by Wright Patman, the Small Business Committee of the

Senate, headed by John Sparkman, and by the Subcommittee on Antitrust and Monopoly of the Senate Committee on the Judiciary, headed by Estes Kefauver. The following is a survey of the more prominent proposals:

1. Effective restrictions on interlocking directorates.
2. Effective prohibition of the basing-point system.
3. Reform of the patent law.
4. Federal incorporation of corporations doing interstate business.
5. Repeal of the Webb-Pomerene Act.
6. Effective regulation of trade associations.
7. Advance notification of intended mergers and stock acquisitions to government authorities.
8. Advance notification of intended price changes where prices are "administered."
9. Increased appropriations for the antitrust division of the Department of Justice and the Federal Trade Commission.

These and related proposals deserve indeed the serious attention and study of all citizens concerned about the growth of economic concentration and desirous of saving the American system of free enterprise. The restraint which the Clayton Act places on interlocking directorates is entirely inadequate, the more so since this form of control has come to be extremely important. There is much to be said in favor of patent law reform; existing weaknesses have been pointed out on page 54, above. The basing-point system of pricing is wasteful and has retarded the economic development of the South and the West. Federal incorporation of corporations engaged in interstate trade might terminate the competition in laxity now prevailing among various state laws. The other proposals are self-explanatory in the light of the preceding discussion.

A number of measures have strengthened the forces of competition during the last few years. Among these, there stand out the Celler-Kefauver amendments of 1950 to the Clayton Act, restricting the acquisition of corporate assets by other corporations; a 1955 amendment to the Sherman Act, increasing fines from $5,000 to $50,000; a 1959 amendment making Federal Trade Commission orders in antitrust cases final after 60 days; the Supreme Court decision of 1957 in the Du Pont-General Motors case; and the establishment of the Small Business Administration with its various aids to small enterprise.

There are those who wish to amend the antitrust laws and replace the present criteria of lawful market behavior by the vague and untested notion of "effective competition."[68] But as Justice Learned Hand has pointed out, "to condemn only those monopolies which could not show that they had exercised the highest possible ingenuity, had adopted every conceivable

[68] Effective Competition," *Report to the Secretary of Commerce by His Business Advisory Council* (Washington, D.C.: U.S. Government Printing Office, 1952).

improvement, stimulated every possible demand . . . would imply constant scrutiny and constant supervision, such as courts are unable to provide."[69] The variety of content which different students of this matter have bestowed upon the concept of effective competition—as explained above, page 362—makes it a particularly inept test of lawful action. Congress, Justice Learned Hand pointed out further, "did not condone 'good trusts' and condemn 'bad' ones; it forbade all." In the absence of new legislation the door, thus, is closed to any attempt to admit effective competition as a criterion of lawfulness that will stand up before the courts.

While our antitrust laws have not prevented the concentration of economic power, there is no doubt that in their absence concentration would be much more pronounced. The philosophy underlying our antitrust laws has inspired other countries to pass legislation with similar objectives. An example is Britain's "Monopolies and Restrictive Practices Act" of 1948 and her "Restrictive Trade Practices Act" of 1956. While in our own country most interest has been expressed in strengthening the existing antitrust laws, there are some thoughtful students who propose more far-reaching reforms, a new law, for example, to prevent "unreasonable market power," with a special court to handle litigation, and an "Industrial Reorganization Commission" in charge of enforcement.[70] In this view, which as yet has not been tested by discussion, it is market power that should be the controlling criterion of antitrust action, replacing the multiplicity of complex criteria that have evolved in the court decisions of 70 years.

Other students of our corporate system emphasize its divorcement of property from power. As property has become fairly widely diffused, power has become more highly concentrated. Its relative freedom from control by the ownership interest and by the forces of a competitive market—a freedom that is further enhanced by reliance upon internal sources of funds, as pointed out in Chapter 4—poses the burning problem of the day. Public regulation and antitrust action is one method of harnessing this power. Another might be an effective "public consensus" that enforces socially responsible business behavior, a modern version of the "Lords Spiritual" who in ancient times checked the power of the "Lords Temporal." Awareness of the threat of concentration and an enlightened citizenry are the first requirements for making the American system accountable to such a tribunal, which would be formed by the leading specialists, university teachers, journalists, politicians, and other molders of public opinion.[71] These thoughts may sound utopian. On reflection, however, it

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[69] *United States* v. *Aluminum Co. of America*, 148 F. (2d) 427 (1945).

[70] Carl Kaysen and Donald F. Turner, *Antitrust Policy: An Economic and Legal Analysis* (Cambridge, Mass.: Harvard University Press, 1960).

[71] See A. A. Berle, Jr., *Power Without Property* (New York: Harcourt, Brace & Co., 1959); the same, *Economic Power and the Free Society* (New York: Fund for the Republic, 1957). For a critical discussion, see "Have Corporations a Higher Duty Than Profits?" *Fortune*, August, 1960, pp. 108 ff.

will become clear that they contain a program for the future as well as a description of what constitutes reality already in our time. Business policies must conform not only to the positive law of the land but also to the public consensus, which will enforce its will by pressing for public action in the form of new legislation, court decisions, or other intervention. To make this public consensus better informed and more articulate is the duty of every one of us.

SUMMARY

Freedom of enterprise and the free market are threatened by the organization of modern large-scale business. In most lines of economic activity, corporations, especially large ones, do the bulk of all business. The growth of the business unit is due to economies of scale as well as to public policies.

The concentration of economic power manifests itself in the form of monopolies, monopolistic combinations, and oligopolies. Attempts to cope with the decline of competition by means of antitrust legislation have been moderately successful. We need increased vigilance to preserve free enterprise in the face of rising concentration.

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STUDY QUESTIONS

1. What are some definitions of small business?
2. Approximately how many people work for business firms with 500 and more employees?
3. How concentrated is the ownership of shares of stock?
4. What evidence is there for increasing concentration of economic power?
5. What are the principal findings of the study by Berle and Means?
6. What are the principal factors accounting for the economic advantages of size?
7. Which of these advantages are derived from the size of the plant, and which from the size of the firm?
8. Which type of oligopoly situation is not effectively controlled by the antitrust laws?
9. What was Schumpeter's view about monopoly?
10. What are the weaknesses of the theory of countervailing power?
11. What are the natural monopolies?
12. How may trade associations restrain competition?
13. How may interlocking directorates restrain competition?
14. What is the difference between horizontal and vertical integration?
15. What are certain characteristics of the current merger movement?
16. What has been the impact of basing-point pricing on the location of industry?
17. What are some of the programs of the Small Business Administration?
18. What is the substance of the court decision in the Alcoa case?
19. What is the substance of the Supreme Court decision in the General Motors-Du Pont case?
20. How have the antimerger provisions of the Clayton Act been activated in recent years?

Chapter 16

THE MAINTENANCE OF FREE ENTERPRISE: GOVERNMENT AND BUSINESS

As has been seen the free manifestation of the competitive spirit in business and economic life is disciplined by the growth of large-scale enterprise. Business, large or small, is disciplined further by the government, which has attained a position of great prominence in the economic affairs of the nation. In this chapter we are concerned, first, with the different approaches used in various countries and at different times for the definition of the proper role of government in economic life, with subsequent formulation of the most widely accepted American ideals in this matter. This is followed by a discussion of the more specific issues that confront the United States: planning versus freedom, state versus federal power, rules versus authorities, including a survey of the principal constitutional and legal problems. In the third section we turn to the important types of government activity in business, be they regulation, taxation, spending, or the organization of public corporations.

GOVERNMENT AND ECONOMIC LIFE

Liberalism versus Totalitarianism. The relations between statecraft and the economy can best be visualized with the help of a set of two extreme models. In one case, government activities are limited to the maintenance of law and order, to the formulation of what may be called a rather lax set of gaming rules, and its more or less perfunctory enforcement. The rules consist, in the main, of definitions of property and contractual rights. In substance property rights are absolute, and the possible content of contracts is little restrained. The government then assumes the role of a presumably impartial arbitrator, or, in less pleasant-sounding words, that of a night watchman who will interfere with the citizens only if they rob or

defraud each other. This system of *laisser faire* is often called "Manchester," or "old-time," liberalism, because its heyday was in nineteenth-century England with its developing cotton textile industry in the Manchester region.

The other extreme is represented by miscellaneous totalitarian formations, so called because under their rule the government assumes total functions and becomes all-pervasive. In the economic field, private property rights either do not exist at all or are severely curtailed; and there are all sorts of restrictions on the lawful content of contracts. To a greater or lesser degree, all governments tend to turn to this type of organization in wartime, when the very existence of society is threatened. Apart from this extraordinary situation the actually existing arrangements either tend to the one or to the other of these extremes. As economic considerations cannot be the only basis for judgments, it is well to consider how civil liberties and the essential attributes of the dignity of the individual fare under both regimes. Historically, freedom of speech and expression, the rule of law, and other attributes of political democracy have flourished generally under arrangements that restrained the operations of government in the economic sphere.

Nineteenth-Century Liberalism. During the nineteenth century, institutions of political democracy were associated with a minimum of government interference in economic affairs. This had been the result of the operations of various factors, among which the ideas of the French and British political philosophers, the writings of the classical economists, and the requirements of the growing industrialism stand out. In terms of material progress the advances which were made under this regime were truly stupendous. But the rise in the standard of living was not evenly distributed in its incidence; and progress, on the whole, was obtained at the cost of economic security.

A society thus organized operates on the basis of the principle of contract, in the sense that its members are free to increase their incomes by means of a variety of contractual transactions—sales and purchases, hiring and firing, etc. Incomes thus earned determine the social position of the citizen. A society of this type can be contrasted with one that is based on the principle of status. In such a society—examples are the feudal order of the Middle Ages or the caste system of India—the members are born into a narrowly defined station which they generally will hold during the period of their natural life. Social organizations that operate on the basis of the contract principle entail a great deal of social mobility which, in conjunction with technological change, makes life an interesting if risky venture. There are opportunities for socioeconomic advancement as a result of changing employment and business conditions, but there is also the insecurity resulting from the risk of failure or loss of job.

Technological progress requires adjustments which, in the long run,

work out to the material improvement of society. If the yield of agricultural products per acre of farm land or per unit of labor increases, a given population requires fewer resources in agriculture and can raise its standard of living by allocating more resources to other tasks. This, however, may be a consolation that will not easily satisfy those who themselves have to undergo the process of adjustment—the farmers, for example, who have to learn a new trade in a new environment.

Adjustment itself is more readily accomplished in times of rapid expansion—of population and of production—than during stagnation or contraction. For this reason, it was borne with relatively little complaint throughout most of the nineteenth century. Hardships, however, were oppressive enough to call for government action already during the first half of the century, when factory legislation was enacted in England and the foundation laid for the future growth of social legislation. But, on the whole, private initiative was under little restraint. Economic life became an unmitigated struggle in which the strong were bound to win out over the weak. Relentless competition, "the law of the jungle," as it has been called by critics of capitalism, had by the classical economists been interpreted as conducive to the general welfare of society. In accordance with the biological notions of the age—Charles Darwin's "natural selection" and Herbert Spencer's "survival of the fittest"—it was now found to reflect the general law of selective evolution. Such views, however, opened the wedge for a more profound discussion of social conflict than had been possible in classical economics, with its harmony of individual and social interests. With the growth of political democracy, the extension of suffrage, and the spread of education, popular demand for social legislation and restraint on unbridled economic power became more vociferous. Dissatisfaction became much more pronounced, however, under the impact of twentieth-century warfare and mass unemployment.

Fascism. In our own age, totalitarianism, though it has been defeated in one of its manifestations, has become victorious in large parts of the world. In the form of fascism, it at one time threatened to enslave humanity. We will first describe fascism and then attempt an economic interpretation of it. Under fascism the state abandons its role as servant of the citizen. The individual is pressed into a role where he assumes the function of a means to the paramount end: the state's glory and power. In the economic sphere, this implies that property and contract rights, though they may be retained in form, can no longer be exercised for the individual's sake but must be used as instruments for the attainment of the fascist state's objectives: internal harmony and external strength. In politics, harmony is achieved by means of terror, coupled with propaganda that deifies the state or the race with the help of nationalistic or racial mythologies. There is complete disdain for civil liberties. In the place of discussion, there is command; and when necessary, bullets supersede ballots.

It is important to note, however, that fascism gained ground only in countries where the tradition of democracy had been weak and where statecraft had always been prominent, and that even there, depression and unemployment were necessary to establish a pattern of values germane to fascism. Fascism has alternatively been interpreted as a reaction, or counter-revolution, of capitalists threatened in their existence by the adverse forces of trade-unionism and social legislation under unfavorable economic conditions, and as a revolt of the middle classes whose relative position was threatened by the growth of large-scale enterprise, violent inflation, and by social policies and the growth of trade-unions which caused the position of the laborers to improve. Fascism's appeal for social harmony sounded especially convincing to those whose interests seemed threatened by radical movements abroad and by the growth of trade-unionism at home. The massive business interests thus were, on the whole, not unfriendly disposed to it. But it cannot be said, on the other hand, that the labor movement made a resolute show of resistance. It did so least in Germany, where collective experience and the traditional pattern of values created the most fertile soil for the spread of fascism among labor.

Communism. As a systematic critique of liberalism, communism is older than fascism. Indeed, it was fear, justified or unjustified, of the spread of communism that did much to promote fascism. Modern communism, as a movement and ideology, originated with Karl Marx (1818–83).

The following is a brief sketch of Marxian political economy. Society is considered as the arena of the class struggle, and government as the exponent of the ruling class that owns the means of production (capital). The ruling class exploits those who have nothing but their labor to sell by returning to them less than the full value of their products. But the difference, called "surplus value," can be realized only with difficulty, because labor does not have adequate purchasing power to buy the products of its industry. The social order is thus exposed to periodic disturbances, wars and depressions, which in the end become so burdensome that labor, being exposed to ever-increasing misery, takes to revolt and expropriates those who exploit it. After a period of transition, during which the proletariat rules, a classless society is established. Means of production and, perhaps, consumer goods are no longer individually owned; economic equality prevails, and there is no need any longer for an instrument of coercion like the government. The state withers away.

Marx and his followers had expected that the most highly industrialized countries would undergo first the transformatory process which has been sketched in the preceding paragraph. Actually, as everybody knows, one of the most backward countries of the world was the first to turn communist and has to this day remained the only one which did so without foreign aid. Communist agitation finds its most fertile soil in feudal or semi-feudal countries without traditions of civil liberties and democratic pro-

cedures, where educational standards are low and poverty widespread. In such countries the attachment to other social arrangements is not strong enough to promote resistance to revolutionary change. Since communism thrives on want, fear, and disorder, it tries to create them.

Communism at work has not meant the disappearance of the state from the scene but the resuscitation of despotism and as much disdain for civil liberties as was manifested under fascism. It has resulted in the formation of new classes and privileged elites. As was noted on page 248, income from work is highly unequal in Soviet Russia, more unequal perhaps than in democratic societies. Under communism, productive resources are utilized in accordance with detailed plans formulated by the government. It is these, not the decisions of the consumers, which guide the allocation of the factors of production. The over-all production plans are not consumption-oriented but aim at the rapid industrialization of the country. Many articles of consumption are either not supplied at all by the government plants or are sold at forbiddingly high prices.

Economic incentives, though in a modified form, have been gradually reintroduced. Where their operation results in excess purchasing power, this is absorbed by turnover and sales taxes which supply the bulk of all tax revenue. Monetary rewards and social recognition are supplemented by such powerful incentives as the threat of demotion, punishment, and social disapproval. Similar incentives are designed to promote economies on the part of management. But such economies are not passed on to the consumer in the form of lower prices nor, principally, to the workers in the form of higher wages or otherwise. As prices and outputs are fixed, economies that result from reductions of the amount of material and labor entering into a unit of the product cause the plant's "profits" to swell. These do not accrue to the manager but are used for plant expansion or are transferred into the general fund of the central government.

Since the state has by no means "withered away" in Soviet Russia, its regime is sometimes characterized as state capitalism rather than communism. The Russians themselves insist that their present system is only "socialism," a step in the development toward communism. While the forms of political life and the mechanism of coercion in Soviet Russia differ little from fascism, and while, in the economic sphere, production is guided by the over-all plans of the government under both systems, fascism retained, at least in form, private enterprise and allowed private profits. These are eliminated under the Russian system of state enterprise.

Dogmatic Marxism is rooted in the metaphysics of the Prussian philosopher G. W. F. Hegel (1770–1831). His "dialectic idealism" posed "the idea as the immanent self-direction of thought," with emphasis on development, from thesis to antithesis and finally to synthesis. Marx turned this system on its head by replacing idealism with materialism. Marxian dialectic materialism considers history primarily as a reflex of the prevailing structure

of production. Change is generated by the class struggle, which will end when the millennium, the classless society, begins. Thus, in the communist picture of the world, progress requires the destruction of a social order in conflict with it. This scheme of thought, in itself, rationalizes aggression and accounts for the difficulty of maintaining peace in a world where communism has been allowed to grow strong.

Indeed, for many years the inevitability of an armed conflict between communism and capitalism was considered an important part of the communist dogma. However, the desire of the Russians to make the most of their opportunities for internal economic development, as well as the recognition that atomic warfare would be universally destructive, appear to have brought about, as a matter of expediency, a relaxation of the doctrine of the inevitability of war. Yet the subject continues to be a controversial one, with adherents to the old view prominent especially among the leaders of Communist China. As the inevitability of a "hot" war is de-emphasized, and as Russia has grown stronger economically, the cold war has assumed new forms of an economic struggle, for supremacy and for the allegiance of underdeveloped countries in Asia, Africa, and Latin America. This Soviet economic threat will be investigated more fully in Chapter 20.

Socialism. Western Europe and North America have kept to a middle road between the extremes of old-time liberalism on the one side and fascism and communism on the other. The same is true of substantial parts of the underdeveloped world which, like India, have been profoundly affected by British political ideas and by the British practice of democracy. In these parts of the world the attachment to civil liberties and democratic institutions is powerful enough to operate against totalitarian solutions. Some countries are on the path toward socialism; others cling more strongly to the tenets of old-time liberalism. Socialism, like communism, aims at the abolition of private property over all or most productive enterprises. Hence, it tends to assign to the government a prominent role in economic affairs. The change, however, is to be achieved as the result of democratic processes and without violent revolution. Most socialists claim to be as much attached to civil liberties and democratic institutions as are the old-time liberals. Moreover, American socialists, such as Norman Thomas, have lessened their insistence on government ownership, having become more sceptical about the state as master of human society.[1]

British socialism, more specifically, has been nurtured on the idea of government by consent. It is neither revolutionary nor antidemocratic. Having never been under the sway of the Marxist ideology, it is more

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[1] Norman Thomas, *Democratic Socialism: A New Appraisal* (New York: League for Industrial Democracy, 1953), p. 6. For a survey of changes in socialist thought abroad, see Sidney Hook, "A New Ism for Socialism," *New York Times Magazine*, April 10, 1960, pp. 13 ff.

pragmatic and clings less to abstractions than does dogmatic Marxism. British socialism has arisen from moral, aesthetic, and emotional dissatisfaction with the less attractive features of business civilization. Strange as it may seem, a well-qualified observer has insisted that "the first place in the influence that built up the Socialist movement must be given to religion."[2] Gradualism was the watchword of the influential Fabian Society, whose name is derived from Fabius Cunctator, a military figure of ancient Rome who attained fame on account of his delaying tactics. The Fabians, founded in the 1880's, counted among their followers Bernard Shaw, Sidney and Beatrice Webb, Graham Wallas, R. H. Tawney, and G. D. H. Cole. They were instrumental in founding the London School of Economics in 1895 and supplied brains and political ideas to the British Labour Party when it was organized at the turn the century.

The core of the postwar program of the Labour Party was a far-reaching plan for state ownership of important industries. The central bank, cable and wireless communication, coal, aviation, gas, iron and steel, electricity, and inland transportation were all taken over by the national government. Steel and trucking have since then been denationalized. The nationalization program still left the bulk of Britain's economy to private ownership. The criteria which guided the selection of industries to be taken into public ownership are indicated by the following characteristics of some of these industries:

1. They are of key importance to the economy, not only to ensure present production but to guarantee continual full employment.
2. They have not been fully efficient in the past and need radical reorganization along the lines of a centrally operated plan. If left to private ownership, this would mean monopoly.
3. They need large capital expenditure, supplied to a large extent by the government.
4. They are linked so closely with other government operations that public ownership is a logical development.

The British program of nationalization was not entirely a scheme of the Labor government. Earlier governments had promoted consolidation plans for various industries; coal was nationalized in 1938 (the mines only in 1946); municipal ownership of utility enterprises was widespread. Continuity of development was also brought about by the operation of public corporations in Britain. Some of these had been in existence during a considerable period of time.

The private owners of the nationalized industries have been indemnified rather generously. They received government securities totaling the equivalent of $8 billion. The concentration of wealth and of income from wealth

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[2] Clement R. Attlee, *The Labour Party in Perspective*, 1937; quoted by William Ebenstein, *Man and the State* (New York: Rinehart & Co., 1947), p. 418.

was thus not directly affected by the program; it is the concomitant tax program with its severely progressive rates of income and estate taxes that slowly, but unfailingly, produces effects toward greater equality.

The nationalization program of the British Labor government was indeed paralleled by efforts aiming at the greater diffusion of wealth and income by means of taxation and comprehensive schemes of social security. Various types of social insurance were consolidated into a single scheme which covers, with a few exceptions, every person in the country. A family allowance is paid separately, regardless of need or of insured status, for every child after the first so long as the child receives a full-time education. There is a national health service (not an insurance) available free of charge, or virtually so, to everybody in the country. Public subsidies for housing and education equalize opportunities for consumption along these lines. Britain has become a "welfare state." With much of labor's nationalization program accomplished, emphasis on the further development of the welfare state, with progressive equalization of consumption, seems to have become the principal concern of British socialists.

Socialism is principally a working-class movement of protest. It is not surprising that the rise of the welfare state and of the "affluent society" have done much to weaken its appeal in Britain, and the same is true of other parts of western Europe. The British Labour Party, which in 1945 had captured 48 per cent of the vote, still held 44 per cent in 1959 but it lost the election. By then, much of its program had been accomplished. Moreover, the prosperity of the 1950's made it increasingly difficult to find fault with capitalism on strictly economic grounds—as the socialists had been doing for so long. There was no major depression, and at the same time there occurred a "gradual erosion of traditional working class attitudes." The causes of this were manifold and have been ably summarized under these headings: "the steady decline in the number of manual wage earners, the rapid rise in living standards and especially the ownership of cars and consumer durables, the decline of the traditionally class-conscious, older working-class age groups, the housing migration from urban slum areas into new suburban estates, the increase in home ownership, the culturally 'classless' influence of TV and the women's magazines, and the growing tendency for leisure activities to center around the home and the family rather than the union branch, the chapel, and the local co-op."[3] Many items in

[3] D. E. Butler and Richard Rose, *The British General Election of 1959* (London: Macmillan & Co., Ltd., 1960). The quotation is from a review of this work by Anthony Crosland, *Observer*, June 12, 1960. See also Crosland's pamphlet, *Can Labour Win?* (London: Fabian Publications, 1960) and another pamphlet by Richard Crossman, *Labour in the Affluent Society* (London: Fabian Publications, 1960). For critical comment see Thomas Wilson, "Changing Tendencies in Socialist Thought," *Lloyds Bank Review*, No. XLI (July, 1956), pp. 1–22; Herbert E. Weiner, *British Labour and Public Ownership* (London: Stevens & Sons, 1960). For a critique of the nationalization program, see R. Kelf-Cohen, *Nationalisation in Britain: The End of a Dogma* (London: Macmillan & Co., Ltd., 1958).

this list point to the increasing Americanization of British—and western European—social life, and just as socialism never had much of an appeal in the United States so it is losing a part of it in Europe, similar factors being responsible in both cases.

Under the influence of these tendencies the continued adherence of the Labour Party to the goal of further nationalization—which is part of its constitutional program but was not defined consistently in specific terms in recent years—has become a matter of controversy, if not a political liability. To allow society to partake in the capital gains of business, the proposal was made to supplement old-style nationalization by the government's acquisition of shares of stock in numerous companies, these to be left to private management and operation for profit, and the government not interfering with their business. The government would acquire the shares by outright purchase, by allowing its pension fund to invest in equities, and by accepting them in payment of death duties. Modifications of this proposal suggested that the securities so acquired be placed in an investment trust, in which the public could purchase shares in the post offices.[4]

British socialism, while apparently de-emphasizing further nationalization, places great stress on equality of opportunity for all, which the welfare state[5] is designed to promote. By reducing extreme differences in income and consumption, the welfare state, according to its advocates, makes for social cohesion among the citizens and prevents class stratification and social unrest. While it apparently lifts the standards of personal welfare and comfort, its impact on productivity is not entirely clear. There are those who insist that economic incentives will fail to operate efficiently when a person's elemental needs are being taken care of by a government which, at the same time, continuously seeks for new tax revenues. With the "whips of greed and need" cast away, new incentives must be found to replace what is gone; and it is possible that they may arise under the favorable influence of social cohesion. In itself the program of the welfare state is not directly related to the program of socialization of industry carried out in Britain. But it may be significant that Britain, where the welfare state is most fully developed, has removed a large sector of the economy from the operation of ordinary economic incentives by means of nationalization.

It should be emphasized again, however, that there is no essential re-

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[4] The original proposal is in Labour Party, *Industry and Society* (London, July, 1957). For a critique, see G. D. H. Cole, "Wakeful Partners in Industry," *New Statesman*, September 28, 1957, p. 373. For the proposed investment trust, see Nicholas Davenport, "Labour and the Public Unit Trust," *Spectator*, February 27, 1959, p. 305.

[5] See A. C. Pigou, "Some Aspects of the Welfare State," *Diogenes*, No. 7 (Summer, 1954), pp. 1–11, reprinted in William Ebenstein, ed., *Great Political Thinkers* (3rd ed., New York: Rinehart & Co., 1960), pp. 836–43. See also G. D. H. Cole, *British Social Services* (new ed., London: Longmans, Green & Co., 1959).

lation between the welfare state and a program of nationalization of industry. Indeed, in Norway, where the welfare state is firmly established, the Labor Party never embraced the goal of nationalization. What has been said of Britain—that all political parties are committed to the support of the welfare state[6]—is true also of countries where socialism is no issue at all. In the United States the House of Representatives passed the bill that extended Old Age and Survivors Insurance to another 10 million people in 1954 by a vote of 355 to 8, and the Senate passed it unanimously. Except for the controversial health insurance, the further liberalization of social security in 1956, 1958, and 1960 enjoyed widespread, bipartisan support. The United States has considerably advanced toward the welfare state—known as "hand-out state" by its detractors—although by methods not always identical with those used in Britain.

The Middle Road. Middle-of-the-road political programs vary all the way from a minimum of public planning and the maintenance of private ownership over all productive resources to more comprehensive plans and socialization of variously defined key industries. In the United States, where the observance of the ideas of old-time liberalism had ushered in an era of material welfare unprecedented in history, they have held their sway longer than anywhere else. It was not until the Great Depression, when mass unemployment rose to threatening heights, that scepticism arose about the appropriateness of a social order whose mechanism of automatic and impersonal controls proved unable to cope with this contingency. The ensuing New Deal legislation testified to the willingness of a large part of the population to submit to orderly change. But the innovations brought about by the New Deal—social security, farm programs, labor legislation, river valley development, protection of investors, etc.—were not in the nature of fundamental changes of economic arrangements. Instead the measures were designed, through reform and improvement, to give new life to existing institutions. Since the New Deal of the 1930's, not a single new program of permanent regulation of any line or phase of business has been instituted in the United States.

While our economy is not a planned one, it has correctly been characterized as a compensated one. That is, the government will not allow a major depression to develop; instead it will pursue policies of compensatory spending, if the need arises, to supplement private expenditures. This reflects the ideas of Keynes and other nonsocialists, which were influential in government circles in the 1930's and which hold that full employment can be achieved by government manipulation and supplementation of spending for consumption and investment. As will be seen in Chapter 18, public budgets have increased rapidly during the past twenty-five years, and so has the number of public employees on all levels of government. This was

[6] Alan T. Peacock (ed.), *Income Redistribution and Social Policy* (London: Jonathan Cape, 1954), p. 162.

3 million in 1929, 4 million in 1939, 7 million in 1954, and 8 million in 1960. In percentage of the total wealth of the United States, excluding land, government ownership—including nonprofit institutions but excluding military installations—has increased from about 5 per cent in 1900 to 12 per cent in 1948. If durable military assets are included the government's share now is approximately one-quarter, about four times as much as in 1900.[7] But while government has assumed a number of new functions, dispensing benefits and imposing restrictions, state enterprise continues to be an exception reserved for extraordinary cases; and private profits hold their own. The United States has insisted on the maintenance of institutions which have made her great and which after World War II enabled her to contribute to the maintenance of a large part of the world.

SPECIFIC ISSUES IN THE UNITED STATES

We turn now to a number of concrete issues which at the present time are of relevance for the proper definition of the role of government in the economic life of the United States. Most of these issues are here expressed in the form of alternatives. But dramatic as this presentation may seem, it will deceive only the unwary. The sound solution cannot be found in adopting one extreme alternative and discarding the other, a method on which doctrinaire pedants and political fanatics will insist. What is needed is the formulation of compromises that will satisfy the specifically American needs.

Big Business versus Big Government. To begin with, it would be as unwise to surrender the advantages of large-scale business as it would be to insist on incapacitating the government. The alternative to the imperfections of the market created by the existence of large business units, unfortunately, is not competition by these same units but by a multiplicity of small concerns which could not participate in the advantages of size. Sometimes, as in agriculture, public preference for small-sized enterprise is so pronounced that proposals have been made to subsidize it. But such arrangements, desirable as they well may be in special cases, are in the nature of exceptions. Bigness, in itself, may give cause for suspicion and control but rarely for reduction or elimination.

The need for the regulation of monopoly and oligopoly and for other controls, the assumption of many new public functions, and the complex character of industrial civilization also have caused what may be called "big government." As has been seen the size of private enterprise occa-

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[7] Raymond W. Goldsmith, "The Growth of Reproducible Wealth of the United States of America from 1805 to 1950," International Association for Research in Income and Wealth, *Income and Wealth*, Series II (Cambridge, Eng.: Bowes and Bowes, 1952), pp. 283, 306.

sionally is so large that its power can stand comparison with that of sovereign governments. In terms of the numbers of employees, there is not much difference, say, between General Motors Corporation and the Post Office Department (½ million), Du Pont and the Department of Agriculture (84,000), Socony Mobil Oil and the Treasury (75,000), American Can and the Department of the Interior (49,000), and Pittsburgh Plate Glass and the State Department (35,000). In many other respects the differences are pronounced. The customer of General Motors can switch to Ford if he is not entirely convinced that what is good for General Motors is good also for the United States. The client of the Post Office Department has no such opportunity; but as a citizen he can, of course, communicate any dissatisfaction or grievance to his congressman. The General Motors' customer's claim to interfere with the management of the concern is a more restricted one, and so is, for that matter, in practice that of an individual stockholder of the company—but this firm, just as any other, will have to abide by the desires of its customers if it wishes to hold its own in the business world. This so-called "market test" loses its substance, of course, if a firm can manipulate the desires of its customers by means of advertising. But in this even the very biggest firms are not always entirely successful—as witness the brands of cars which have made a short-lived appearance in recent years. In principle, the response of the market is the decisive test of the adequacy of business policies. In the long run, no firm can produce goods which yield a revenue that fails to cover the cost of production.

For a government department, no similar test of efficiency exists. Its services are diffused over the citizenry at large in such a manner that the value of the services to the user cannot be equated with their costs. This does not mean that there is no test of governmental efficiency at all. Every year the heads of departments must clear their budgetary requests with the Bureau of the Budget, which is part of the Executive Office of the President. After much scrutiny they are forwarded to the appropriations committees and subcommittees of both the Senate and House of Representatives. These committees usually are manned by legislators who have become specialists in the subject that comes up for review before them and who may have been members of the same committee for some years. There the departmental request is again exposed to searching scrutiny in the light of what, in the last analysis, is the collective judgment of the American people. Requests for funds which cannot stand up to this test will be rejected.

While government is representative in the United States, the diffusion of ownership of the large corporation has created a situation where often there is no one among the proprietors to whom management seems responsible. The government must be placed in a position where it can stand up to such enterprises and, if necessary, protect the public from abuses. It would indeed be defeatist to insist, as some do, that weak government is

preferable to good government. The American people, on the basis of their record, are entitled to confidence in their ability to master problems of political as well as of business organization.

Freedom versus Planning. Another false disjunction is the juxtaposition of freedom and planning, as if each must be considered incompatible with the other. The tendency to do this was encouraged by a widely read book of the economist, F. A. Hayek, entitled *The Road to Serfdom.*[8] In this work the author sets out to prove that countries which have started on the road to government intervention in economic affairs generally have lost political freedom and civil liberties. The whole argument is developed, however, against the background of continental-European experience. There, indeed, fascism had its proving ground. But in the fascist countries, especially in Germany, the idolatry of the state had at all times been preached, long before the arrival of fascism. Hayek's thesis may be a sound diagnosis of the German case. In the Anglo-Saxon countries and in western Europe the liberal tradition is much more firmly grounded. There is no convincing reason to argue *a priori* the incompatibility of political freedom and economic planning in these countries. It is true, nevertheless, that the difficulties which attend democratic planning increase with the size of the country, its level of income, and the attachment to liberal institutions. In the United States, planning was popular during the thirties, when the low level of income and employment seemed to call for co-ordinated effort at betterment.

To be sure, planning means different things to different people. An economic plan is a consistent scheme which is designed to anticipate future developments and into which economic activities are fitted. No business concern could survive without making plans of this sort. Governmental planning is not reserved for socialistic countries only. There is much of it, although not as much as there was during the period of reconstruction following World War II, in the Scandinavian countries and in the Netherlands. In planning of this sort, much use is made of forecasting methods of the type referred to on pages 102, 124, above. Planning does indeed require some ideas about what is likely to happen in the future in the absence of a plan, and the step from prediction to planning is one that is not easily resisted.

There is an enormous range of the possible comprehensiveness of a plan. The most comprehensive sort of planning concerns the central direction of production and distribution. The central planning authorities determine what is to be produced, how much is to be produced, and how it is to be distributed. A less-comprehensive plan would confine itself only to key industries, leaving others under the impersonal rule of the market mechanism. Another variety of planning would regulate all investment activities

[8] Chicago, University of Chicago Press, 1944.

but would leave the use of existing facilities unregulated. As a type of planning fundamentally different from production planning, fiscal and monetary planning should be mentioned. Furthermore, there are those who characterize all basic governmental policies as planning, as little integrated as these policies may be. Finally the word "planning" has been used for describing self-government of industry—such as envisaged under the code system of the National Industrial Recovery Administration—although this may be better characterized as a monopoly system reinforced by the power of the state.

A more comprehensive plan usually calls in its execution for co-ordination of individual activities and, perhaps, for compulsion. Its purpose may be full employment, war preparation, victory in war, or any other goal of public policy. Public planning in a democracy may be easier in a small country than in a large one. Wartime planning was comprehensive and coercive, but it helped to accomplish a universally endorsed and easily defined objective: that of winning the war. In peacetime, democratic planning encounters greater difficulties, because then the goals of public action are more diverse and may even be in conflict with one another. The formulation of compromises concerning the goals of public policy is facilitated when there is a wide area of agreement regarding the scale of values to which individuals and groups in society are attached. In the United States homogeneity of this sort is quite pronounced, and there are only few whose pattern of value differs profoundly from that which integrates society. Differences of opinion may, of course, exist concerning the adequacy and suitability of means designed to attain more or less universal objectives. Some of such differences can be resolved with the help of economic science.

To speak in the most general terms, it seems wise to place principal emphasis on relative prices and the price system as regulator of the allocation of productive resources. This rule, however, must be implemented by public policy in a number of important cases where isolated individual action would not produce optimum allocation of resources. (1) This is true, first, when the market situation is such that the evolving price would deviate from the competitive one. The antitrust policy, described in Chapter 15, is one way to cope with such conditions, as is the regulation of public utilities taken up in Chapter 17. Other proposals aim at the establishment, by the government, of "yardstick" plants, which would force the price of the monopolist down; and again others plead for the nationalization of monopolistic enterprise. These remedies, however, are full of technical difficulties in the first case, and in the others they would entail government enterprise.

(2) There are two other cases where relative prices and the price system fail to bring about the optimum allocation of resources. The first of these occurs when an individual or business concern is prevented from reaping all the fruits of his effort. The principal example is that of the farm

tenant, who does not own his land and thus may fail to make improvements which after the end of the lease would revert to the landlord. In such cases special legislation may be of help.

(3) More important, perhaps, are the instances where benefits from services are diffused in such a manner that their costs cannot be allocated to any direct beneficiary. If the services are in the nature of joint products (as, for example, the climatic benefits which the public derives from forests), it may help to reimburse the investor through tax benefits or other forms of public subsidization. But if the whole product consists of services so widely diffused, no private person will be willing to undertake the investment. This is one of the reasons for the maintenance, by the government, of the military establishment, the police, and general administrative services.

In the instances just discussed the price system is supplemented by public policy to improve the allocation of productive resources among competing uses. But public policy is of great importance also in the attainment of another objective which the price system seems unable to accomplish. This refers to the maintenance of over-all economic aggregates, such as employment and income, on an optimum level which steers clear of unemployment as well as of violent inflation. Public policies aiming at these objectives have been discussed in Chapters 7 and 9.

The study of the special conditions which call for government intervention in the economic field is the special concern of welfare economics, a discipline which supplies the rudiments of a theory of public policy. The most general precept of welfare economics would recommend public policies which, while they may injure some interests, nevertheless, affect total output so favorably that the increase would suffice to reimburse those who have been harmed.

Federal versus State Powers. Erroneous, also, is the belief that local or state governments are in themselves unsuited for the fulfillment of economic functions and that these should be reserved for the federal government or the contrary view which insists on the respective unsuitability of the federal government. It is true that those governments which are closest to the people should assume as many functions as they can fulfill reasonably well. This will generally be the local governments. But it is also obvious that there are definitive and rather narrow limits to the range of work they can do in the economic field; and this consideration applies, with modifications, also to the state governments.

State legislation provides a laboratory for social experimentation. It can sponsor ventures which would be all but impossible under any other than the federal system. But unless a standardized pattern of legislation is eventually adopted by all states, certain states may be placed at a disadvantage if they enact and execute properly legislation which other states refrain from passing. Moreover, many state and local governments are notoriously weak

and inefficient. Also important is the fact that the state boundaries as they are drawn do not reflect economic differences; they may cut through territories whose economic problems call for a uniform solution. The incidence of different problems will again not bear equally heavily upon the various regions. For this reason the federal agencies which maintain field offices generally maintain different regional subdivisions, delineating them in accordance with the nature of the problem with which they have to cope.

Finally, in times of depression, it becomes important that the lower political subdivisions cannot well undertake programs of public spending that would relieve distress. If they were to rely on more severe taxation the regressive nature of their tax systems might cause the depression to become more painful. Furthermore the effects of public spending are diffused throughout the country at large, and it would be unjust if those regions in which local and state governments disburse funds more generously should provide the means for the prosperity of the nation.

It is also only with the help of the federal government that the consequences of extreme economic inequalities among the states can in part be offset by appropriate financial arrangements. By the same token, state governments may equalize conditions within their respective boundaries. Grants-in-aid, given by the central government on the fulfillment of certain conditions (proper standards of administration, contributions of the lower political subdivision), have become an important instrument for handling problems that cut across the traditional division of public responsibilities. Such aids are granted for public assistance, highways, education, agriculture, and other purposes.

Some measure of equalization is needed, because per capita incomes vary greatly in the different states. In Delaware they are about three times as large as in Mississippi, with the other states holding positions in the middle between these extremes.

Sometimes states have jointly regulated affairs which extend beyond the limits of a single state. Such arrangements are called interstate compacts. They have been effective instruments in handling such diverse matters as oil conservation, water rights, and the establishment of the Port of New York Authority.

Rules versus Authorities. Another dramatic contrast is that of rules and authorities. Walter Lippmann, a distinguished student of public affairs, has insisted that the democratic tradition requires public action in the form of generally applicable principles, or rules, rather than as a result of an increase in the range within which the discretion of public officials may operate.[9] The same distinction has been echoed in the economic literature. As noted before, in the economic sphere, reliance on rules or impersonal mechanisms

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[9] *The Good Society* (Boston: Little, Brown & Co., 1937).

is first of all called for in the allocation of productive resources. While monopolistic excesses must be averted by public authorities, the determination of price and output by these in other than abnormal times is liable to be inferior to the operation of relative market prices as guides of production. But in the realm of aggregative economics the mechanistic belief in the automatic working of impersonal forces has often been disappointed. Indeed, a modicum of conscious management of credit was instituted in conjunction with the so-called "automatic gold standard" in the nineteenth century. The combination of management and automatism avoided neither periods of unemployment nor periods of inflation. Hence, greater reliance on management of monetary and credit policy by public authorities has come to be accepted generally; and in the Employment Act of 1946, Congress has declared it the responsibility of the federal government to promote maximum employment.

In the discharge of these and other duties, public authorities require a moderate measure of discretion. This is indeed no novel feature of public life. The Anglo-Saxon legal tradition is a storehouse of cases whose decision is, under the guise of general rules, actually entrusted to the wide discretion of the judiciary. The emergence of such important concepts as due process of law, fair value, and reasonableness testifies to this. Since ordinary courts of law are not suited to handle complex economic details which often require swift attention, a good measure of discretion has been granted to regulatory boards and quasi-judicial tribunals. Examples are the Federal Reserve Board, the Interstate Commerce Commission, Federal Trade Commission, and the National Labor Relations Board. In their operation, these and other public agencies, however, have to observe the rule of law; and their adherence to it is subject to judicial review.

THE CONSTITUTIONAL SETTING

The supreme law of the land grants Congress the power to make laws in those fields where jurisdiction is expressly assigned to it. In the economic area the principal federal lawmaking powers consist of the power to levy taxes and to regulate interestate and foreign commerce (United States Constitution, Article I, Section VIII).

United States constitutional doctrine has cherished for long the principle of judicial review of acts of the legislature.[10] According to this principle, courts can hold void statutes that, in their opinion, conflict with the Constitution. The Supreme Court thus is in the position to deny validity to laws affecting the economy if it holds that these violate the Constitution. Until the late 1930's, virtually every important piece of legislation was indeed challenged before the courts, and the Supreme Court declared many

[10] *Marbury* v. *Madison*, 1 Cranch 137 (1803).

of them unconstitutional. Since then, however, the Court has come to recognize broad powers of legislation in the economic field, and during the 1940's and 1950's only a very few of the great judicial battles were concerned with economic affairs.

The Taxing and Spending Powers. The Constitution orders that taxes may be levied "to pay the debts and provide for the common defense and general welfare of the United States." This raises the question whether taxation, to be lawful, must be for purposes of revenue, or whether control, regulation, or prohibition may serve as the purpose of taxation. There are a number of instances in which the Supreme Court denied the constitutionality of regulatory taxes. For example, it frustrated an early attempt to attack the problem of child labor by invalidating a law that levied a tax on concerns employing children in violation of certain regulations. Later it declared unconstitutional the Agricultural Adjustment Act of 1933, which levied a tax on agricultural processors and earmarked the proceeds for benefit payments to farmers willing to reduce production.[11] But in many other instances the court refused to enquire into the motives of the legislature and upheld laws that aimed at regulation rather than the production of revenue. Such was the view of the court in the oleomargarine cases, where the tax primarily served the protection of the dairy industry, as well as in cases in which the constitutionality of protective tariffs was questioned.[12] Most important, the majority of the justices upheld the Social Security Act of 1935, which had been enacted on the basis of the tax power of Congress.[13]

The spending power of Congress is a matter about which the founding fathers held divergent views. James Madison had insisted that this power was limited by the enumeration of direct grants of legislative power found in the Constitution, while Alexander Hamilton espoused the opposite view, holding that the spending power was granted in addition to the other powers. Hamilton's view was vindicated in 1937, when the Court upheld the power of Congress to tax and appropriate money to finance old age insurance.

The Commerce Clause. While Congress shares the tax power with the states, its authority to regulate interstate and foreign commerce is exclusive. Although drafted before the dawn of the industrial era the commerce clause came to support a substantial portion of the elaborate network of laws which during the course of time were passed to regulate the economic life of the nation.

In an early decision, "commerce" was interpreted to mean "traffic," not

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[11] *Bailey* v. *Drexel Furniture Co.*, 259 U.S. 20 (1922); *United States* v. *Butler*, 297 U.S. 1 (1936).

[12] *McCray* v. *United States*, 195 U.S. 27 (1904); *Magnano Co.* v. *Hamilton*, 292 U.S. 40 (1934); *Hampton* v. *United States*, 276 U.S. 394 (1928).

[13] *Steward Machine Co.* v. *Davis*, 301 U.S. 548 (1937); *Helvering* v. *Davis*, 301 U.S. 619 (1937).

necessarily commercial intercourse.[14] Thus the commerce clause could serve as constitutional basis for the federal regulation of transportation and communication. But when in 1890 Congress attempted to cope with combinations that restrained interstate trade, the Supreme Court at first all but vitiated the purpose of the legislature by regarding a combination of sugar manufacturing plants as outside the prohibition of the Sherman Act.[15] In later decisions, however, the distinction between interstate commerce and manufacture designed for such commerce was all but abandoned.

Intrastate transactions that affect interstate commerce generally were considered under the jurisdiction of Congress. During the thirties a distinction was made between intrastate transactions which affect interstate commerce directly and those which do it only indirectly, with the latter falling beyond federal jurisdiction.[16] But in subsequent decisions a more liberal attitude prevailed. Agricultural production control by means of marketing quotas, as provided in the Agricultural Adjustment Act of 1938, was upheld,[17] and so was the Agricultural Marketing Agreement Act of 1937, although its price-fixing features applied to products of which less than the total supply was shipped in interstate commerce.[18]

In other cases the commerce clause was interpreted to include the power to exclude from interstate commerce certain goods considered obnoxious. This power, however, was not meant to be absolute. In the so-called "first child labor case," an attempt of Congress to exclude from interstate commerce products of enterprises which employed children below certain ages was voided.[19]

Regulation of employment conditions was, however, sanctioned at an early date in the case of railroads, where it was held to promote the safety and efficiency of interstate commerce.[20] This rule was later expanded to include the carrier's liability for injuries sustained by employees.[21] Also upheld was the federal regulation of industrial relations in the National Labor Relations Act, where interstate commerce was held to be directly affected by the adverse consequences of industrial strife, which the Act was designed to prevent.[22] The narrow attitude manifested in the child labor case of 1918 was completely abandoned in 1941, when the court upheld the Fair Labor Standards Act, legislation that forbids the shipment of goods

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[14] *Gibbons* v. *Ogden*, 9 Wheat. 1 (1824); also *United States* v. *Simpson*, 252 U.S. 465 (1920).

[15] *United States* v. *Knight Co.*, 156 U.S. 1 (1895).

[16] *Schechter* v. *United States*, 295 U.S. 495 (1935).

[17] *Mulford* v. *Smith*, 307 U.S. 38 (1939).

[18] *United States* v. *Rock Royal Cooperative*, 307 U.S. 533 (1939).

[19] *Hammer* v. *Dagenhart*, 247 U.S. 251 (1918).

[20] *Baltimore & Ohio R.R. Co.* v. *Interstate Commerce Commission*, 221 U.S. 612 (1911); *Wilson* v. *New*, 243 U.S. 332 (1917).

[21] Second employers' liability cases, 223 U.S. 1 (1912).

[22] *National Labor Relations Board* v. *Jones & Laughlin Steel Corporation*, 301 U.S. 1 (1937).

in interstate commerce which are produced in violation of the standards set up by it.[23]

In the light of these trends, only strictly local activities are left outside the application of the commerce clause. In 1942 the regulation of wheat production was upheld by a unanimous court, even though in the case under review the wheat was to be consumed on the farm of the producer.[24] One of the last remnants of business considered beyond federal jurisdiction fell when the court reversed the stand taken many decades ago in the case of insurance companies. Insurance contracts with customers in other states for long had been interpreted as local transactions rather than articles of commerce.[25] It was not until 1944 that insurance companies were considered to be engaged in interstate commerce.[26] Thus the way was open for the federal regulation of a business that had assumed overwhelming importance as a reservoir of savings and in guiding liquid funds into productive investments.

In its changing attitude to economic legislation the court was much influenced by three great justices, who resisted the use of the Constitution to block social and economic legislation required by the circumstances of the time. These men were Oliver Wendell Holmes, Jr., perhaps the most distinguished jurist who ever sat on the highest federal bench, Louis D. Brandeis, and Benjamin N. Cardozo. In the interpretations of these men the federal Constitution became an eloquent testimonial of its drafters' wisdom by proving itself a suitable instrument for guiding the life of the nation under the most diverse circumstances. Justice Holmes, a great sceptic, was much attached to the laisser-faire spirit of a bygone age. This turned him into an articulate protector of civil liberties, but at the same time his fundamental scepticism was strong enough to prevent him from becoming a captive of the economics of old-time liberalism. While he could not be swayed by new ideologies or novel solutions to old problems, he nevertheless was willing to give them a chance, "even though the experiments may seem futile or even noxious to me and to those whose judgment I most respect."[27] It was in this spirit that he rendered his famous dictum, "The Fourteenth Amendment does not enact Mr. Herbert Spencer's *Social Statics*."[28] Many of Justice Holmes' dissenting opinions were pleas for "free trade in ideas"[29] and indicate his fundamental respect for freedom of thought and expression, "not free thought for those who agree with us, but freedom for the thought that we hate."[30] Justice Holmes was on the

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[23] *United States* v. *Darby*, 312 U.S. 100 (1941).
[24] *Wickard* v. *Filburn*, 317 U.S. 111 (1942).
[25] *Paul* v. *Virginia*, 8 Wall. 168 (1869).
[26] *United States* v. *South-Eastern Underwriters Association*, 322 U.S. 533 (1944).
[27] *Truax* v. *Corrigan*, 257 U.S. 344 (1921).
[28] *Lochner* v. *New York*, 198 U.S. 75 (1905).
[29] *Abrams* v. *United States*, 250 U.S. 629 (1919).
[30] *United States* v. *Schwimmer*, 279 U.S. 655 (1929).

Supreme Court bench from 1902 to 1932, resigning at the age of 90.

Justice Brandeis' economic philosophy was more specific and the Justice's attitude to it more positive. He considered large-scale enterprise, monopoly, and the growth of economic concentration as a threat to the free institutions of capitalism. Aggressive public policy to cope with these evils seemed to him indispensable if the trend toward socialism was to be stemmed. This trend he believed to be engendered by the "curse of bigness," and the "insidious menace inherent in large aggregations of capital, particularly when held by corporations."[31] Brandeis' tenure of office, while shorter than that of Holmes, covered nevertheless a span of time extending from World War I to World War II. Justice Cardozo, a member of the court during a brief period of the thirties, added to the stature he had gained before by writing a number of memorable decisions, including the one which upheld Hamilton's broad interpretation of the general-welfare clause of the Constitution. "Yet," as he pointed out, "difficulties are left when the power [to spend for the general welfare] is conceded. The line must still be drawn between one welfare and another, between particular and general. Where this shall be placed cannot be known through a formula in advance of the event. There is a middle ground or certainly a penumbra in which discretion is large. The discretion, however, is not confined to the courts. The discretion belongs to Congress, unless the choice is clearly wrong, a display of arbitrary power, not an exercise of judgment. . . . Nor is the concept of general welfare static. Needs that were narrow or parochial a century ago may be interwoven in our day with the well-being of the Nation. What is critical or urgent changes with the times."[32]

The War Power. Under the war power of the United States, much farther-reaching control and regulation of the economy is considered constitutional than is true under the tax and commerce clauses. The war power is the power to wage war successfully. It includes the authorizations given by the Constitution in Article I, Section VIII, Paragraphs 11 to 16 and 18, and in Article II, Section II, Paragraph 1, without apparently being limited to these. The matters there ordered refer to the declaration of war, the maintenance of the armed forces and the regulation of their conduct, the militia, the President's position as commander-in-chief, and the means of executing the specifically assigned powers.

As a general rule, the constitution is not suspended in wartime,[33] but the powers of the national government are vastly broadened to harness the strength of the nation to the prosecution of the war. Indeed, the war power has served as the constitutional basis of the most serious curtailments of personal rights, state rights, and the separation of powers. In wartime, executive agencies have been given virtually unrestrained power over produc-

[31] *Ligget* v. *Lee*, 288 U.S. 548 (1933).
[32] *Helvering* v. *Davis*, 301 U.S. 640 (1937).
[33] *Ex Parte Milligan*, 4 Wall. 2 (1866).

tion, distribution, and pricing, with the President holding authority to seize plants and other facilities. As the Supreme Court has pointed out, "the power of Congress to draft business organizations is not less than its power to draft men for battle service."[34]

Traditionally, the war power is designed to facilitate the successful prosecution of a "hot" war. It is uncertain to what extent it can be used to justify measures taken in the course of war prevention, preparation for war, and in the prosecution of a cold war. While the courts did not challenge price and production controls in wartime, nobody can say for sure whether such controls would stand up if they were enacted, for example, as part of a program designed to accelerate economic growth and inspired by considerations of military-political strategy. Wartime seizures of plants, another example, were a common experiences, but when President Truman in 1952, in the face of the threat of a nation-wide steel strike, attempted to seize and operate the steel mills, referring to the requirements of national defense, the action was checked by the courts. On the basis of the principle of the separation of powers, the Supreme Court held that the President's act was unauthorized in the absence of legislation that would bestow the required power upon him.[35] Indeed, as these cases illustrate, the only constitutional problems in the economic field of potentially current relevance relate to the constitutionality of measures of economic control undertaken under conditions short of a hot war.[36]

Police Power and Eminent Domain. It remains to discuss two federal powers not expressly granted by the Constitution but recognized by American constitutional law: the police power and eminent domain. Both these powers are attributes of state governments as well. By the police power is meant the power of the government to interfere with the citizen's property rights for the protection and promotion of public health, safety, order, and morals. Federal police power may, in general, only be utilized to the extent to which it is implied in other, expressly granted powers, such as, for example, the power to regulate interstate commerce. It has been the basis for exclusion from interstate commerce of impure foods and drugs and of meat not properly inspected. The police power of the states was instrumental in the enactment of zoning laws, labor legislation, and public utility regulation. The great advances in the field of state labor legislation are of comparatively recent date. In 1905, a state statute limiting hours of work in bakeries was refused recognition as legitimate exercise of the police power; employers and employees, it was held, may make contracts as they see fit.[37] It was only twelve years later that this ruling was ignored and a

[34] *United States* v. *Bethlehem Steel Corp.*, 315 U.S. 305 (1942).

[35] *Youngstown Sheet and Tube Co.* v. *Sawyer*, 343 U.S. 579 (1952).

[36] For a more extended discussion of the relevant decisions, see Edward S. Corwin, *The Constitution and What It Means Today* (12th ed., Princeton, N.J.: Princeton University Press, 1958), pp. 64–70, 122–30.

[37] *Lochner* v. *New York*, 198 U.S. 45 (1905).

state law limiting hours of work upheld.[38] It took another twenty years *until lawful restriction of the freedom to make employment contracts was* extended to include minimum wages.[39]

In connection with the regulation of public utilities, about which more will be said in Chapter 17, there developed the concept of a business affected with a public interest. Such business was considered subject to public regulation. The concept gradually was widened and came to include not only common carriers, public utilities, and other enterprises requiring public concessions or franchises, but any industry which the court, for adequate reasons, held subject to control for the public good. By this token the constitutionality of a New York statute fixing maximum and minimum prices of milk was upheld.[40]

When the police power is exercised, private rights are curtailed and damage may arise. But in this case no indemnity is paid. In the case of eminent domain—the power of the government to take private property for public use—the Fifth Amendment requires the payment of just compensation.

Constitutional Restrictions. The principal restrictions imposed on the legislature's power to interfere with private property and contracts are found in the due-process clauses of the Fifth and Fourteenth Amendments, the first addressed to the federal and the second to the state legislatures, and in the limitations placed on the delegation of legislative powers. The due-process clauses make it unconstitutional to deprive any "person" of life, liberty, or property without due process of law. This has been interpreted to require proper judicial procedures and exclude arbitrary and oppressive acts. In addition to serving as a procedural safeguard, due process has been given at times a substantive meaning by the Supreme Court. With "liberty" interpreted in a substantive way, it was defined to include liberty of contract as a protected right. In this manner, due process was blended with laisser faire to protect unrestrained business activity against regulation. As laisser faire vanished, such interpretations have become obsolete. When in 1949 a labor union tried to attack the right-to-work laws as infringements of liberty of contract, the Court refused to reinstate substantive due process as an economic vehicle,[41] and the issue has not again been raised.

Traditionally the courts have included corporations among the beneficiaries of the due-process clauses, although dissent has been expressed to

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[38] *Bunting* v. *Oregon*, 243 U.S. 426 (1917).

[39] *West Coast Hotel Co.* v. *Parrish*, 300 U.S. 379 (1937).

[40] *Nebbia* v. *New York*, 291 U.S. 502 (1934).

[41] *Lincoln Union* v. *Northwestern Co.*, 335 U.S. 525 (1949). See also Robert L. Stern, "The Problems of Yesteryear: Commerce and Due Process," *Vanderbilt Law Review*, Vol. IV (1951), pp. 446 ff.

this view.[42] On the basis of the due-process clause the Supreme Court has required that public utility rates determined by the government must allow a fair return on a fair value of the property.[43]

The Supreme Court has often made it clear that powers of the legislature cannot lawfully be delegated to the executive, in the sense that organs of the latter are given lawmaking functions. It is the view of the court that delegation of legislative power, to be lawful, must be limited by the establishment of standards that restrain the discretion of the agency upon which powers to make rules and regulations are conferred. While delegation is indispensable under modern conditions of economic life, the law must be reasonably certain and cannot transfer all responsibility upon the executive.[44] Again, under the war powers the area of delegation in economic matters and controls can be extended, and in general the Court will sustain broad delegation of power in economic affairs if there is a sufficient legislative guide for the executive.[45]

METHODS OF GOVERNMENT INTERVENTION

We may summarize the manifestations of government in business as consisting of regulation, direct control, taxation, spending, lending, borrowing, and the activities of public corporations.

Regulation. Regulations, the formulation of general rules which restrain property rights and the freedom to make contracts, are made by the legislatures and, in a restricted form, by various executive agencies. These include the President and the regular departments as well as a number of regulatory commissions upon which a narrowly defined lawmaking power is delegated. But most of these commissions not only formulate general rules but they also apply these and other laws by deciding concrete cases. For this reason they are also referred to as "quasi-judicial" tribunals.

Regulation may be designed for the protection of certain groups, for example, of the investors, in whose interest the Securities and Exchange Commission watches over "truth in securities." Or the regulation may effect income distribution—the minimum wage under the Fair Labor Standards Act is a case in point—or industrial relations, or policies of price and output, as, for example, under the antitrust laws and under the legislation regulating public utilities and common carriers. Still other regulations—the tariff, export and foreign exchange control—may affect foreign trade

42 Justice Hugo Black, in *Connecticut General Life Insurance Co.* v. *Johnson*, 303 U.S. 77 (1938).

43 *Smyth* v. *Ames*, 169 U.S. 466 (1898).

44 *Panama Refining Co.* v. *Ryan, etc.*, 293 U.S. 388 (1935); *Schechter* v. *United States*, 295 U.S. 495 (1935); *Carter* v. *Carter Coal Co.*, 298 U.S. 238 (1936).

45 *Yakus* v. *United States*, 321 U.S. 414 (1944); *Opp Cotton Mills* v. *Administrator*, 312 U.S. 126 (1941).

and finance. Last but not least, there is a whole network of regulations providing control over agricultural production and marketing. When regulation is designed to affect the over-all economic aggregates, it will operate by means of fiscal, monetary, and credit policies.

Direct Control. Not all government intervention consists of general regulations. Sometimes public authorities exercise direct control over individual transactions, especially over prices. Examples are provided by the fixing of agricultural prices and by the determination of the rates which public utilities are allowed to charge their users.

Taxation. Taxation, as has been seen, may be used for revenue as well as for regulation, not excluding prohibition and destruction. Since public budgets have continuously been increasing, tax revenue has come to be an important component of the national product. Its variations have significant effects on the level of employment and prices.

Spending, Lending, and Borrowing. While taxation is deflationary, inflationary effects can be produced by borrowing and spending. Indeed, there are students of economic affairs who regard the powers of taxing and spending as the principal instruments of economic policy. This view, which is known as "functional finance," judges fiscal measures only by their effects and attaches little importance to the revenue aspects of taxation. Modern government can procure necessary revenue by issuing or borrowing money and thus does not have to rely on taxation. In functional finance, variation of taxation is to serve primarily or exclusively the function of maintaining the over-all economic aggregates, income and employment, at the desired level. Unemployment and an unduly low price level is cured by tax relief and/or increase in public spending, while an unduly high level of prices calls for an increase in taxation and/or a fall in the rate of public spending. Functional finance thus tends to underrate the inflationary potential represented by a huge public debt, as the latter is bound to accumulate if taxation is neglected as a revenue producer. It also de-emphasizes the role of other than monetary factors in the inflationary process: prices, profits, and wages.

Public spending or lending, while it has the characterized over-all effects on such aggregates as income and employment, may have more specifically defined purposes: such as, public works, poor relief, education, health care, public power production, housing, urban development, river valley developments, foreign aid, aid to small business, and maintenance or strengthening of the military establishment. In many situations, it is not the over-all effect on aggregates that is the goal of public spending or lending but the promotion of such a specific purpose. The over-all effect then assumes the nature of a more or less incidental by-product of such a policy, which may or may not be desirable, as the case may be.

Public Corporations. Public spending and lending is done not only by the ordinary government departments but also by other instrumentalities

of the government created for specific purposes. When the government wants to enter business, it often creates for this purpose corporations in which it holds all, or a substantial portion of, the stock. Such corporations can operate with greater ease and independence than government departments, whose financial transactions are closely circumscribed by congressional appropriation laws and which must live up to numerous time-absorbing formalities.

The first U.S. government participation in the corporate field occurred in 1781 when the United States became the majority owner of the first corporation chartered, the Bank of North America. Later on the government acquired 20 per cent of the capital of the First and Second Bank of the United States. In 1904 the government, for the first time, obtained complete ownership and operation of a business corporation, the Panama Railroad Company. In 1917 it subscribed virtually all of the capital of the Federal Land Banks. A great number of corporations with wartime functions were created during World Wars I and II. In 1923 Congress subscribed to the capital of the Federal Intermediate Credit Banks, which grant agricultural loans, and in 1932 the now defunct Reconstruction Finance Corporation was organized to provide credit for a variety of business purposes. The Tennessee Valley Authority, the Federal Deposit Insurance Corporation, the Commodity Credit Corporation, and the Export-Import Bank are among the more important federally owned corporations which assumed prominence in recent decades.

Public corporations are also used at the state and local level, where in fact they have played an important role in the economic development of our country during the nineteenth century, sometimes in the form of mixed corporations, that is, corporations whose stock is held by private parties as well as public agencies. A contemporary example of a public corporation at the local level is the Grant County P.U.D. (Public Utility District) in Washington State, which owns and operates large hydroelectric dams.

SUMMARY

Conditions favorable to the growth of big business have also ushered in big government. There has been a tendency away from nineteenth-century liberalism with its emphasis on laisser faire. In parts of the world, government has become totalitarian in the sense that its activity permeates all phases of life, including the economy. This is generally associated with disdain for civil liberties and democratic procedures. In western Europe and North America the democratic tradition is strong enough to combine political freedom and individual rights with an active economic policy of the government required by the complexity of modern economic institutions.

In the United States suitable arrangements have been found for the co-

existence of big business and big government, for freedom and planning, for federal and state activities, and for the development of administrative action in conformity with broad rules. As interpreted in the more recent court decisions, constitutional authorizations—largely in the form of the tax and commerce clauses—supply a suitable basis for such arrangements. The commerce clause has become a virtually unlimited instrument for the regulation of economic activities. Manifestations of government in business consist of regulation, direct control, taxation, spending, borrowing, lending, and the activities of public corporations.

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STUDY QUESTIONS

1. What is meant by "Manchester liberalism"?
2. Why does communism pose such a great threat in underdeveloped countries?
3. What is the dilemma facing British socialism?
4. Who are the Fabians?
5. Why has socialism never been much of a force in the United States?
6. What are the aims of the welfare state?
7. How did Keynes try to save capitalism?
8. In what sense is the United States economy a compensated one?
9. What are the different interpretations of planning?
10. What are the three cases in which the pursuit of private interests violates the public interest?
11. Why is there little point in assigning new governmental functions to the state and local governments?
12. Apart from the war years, have there been any new programs of federal regulation since the 1930's?
13. Trace the interpretation of the commerce clause as it has evolved in the decisions of the Supreme Court.
14. What is meant by substantive due process?
15. What is the difference between eminent domain and the police power?
16. What are some examples of government corporations?
17. Why would the government form a corporation for a certain purpose instead of having it fulfilled by a regular government department?
18. Why have federal grants-in-aid to the states become so important?
19. What is, economically speaking, the principal difference between the activities of a government department and those of a private firm?
20. What is the most general precept of welfare economics?

Chapter 17 PROBLEMS OF PUBLIC UTILITIES AND TRANSPORTATION

NATURE OF PUBLIC UTILITIES

Universal Character of Demand. Public utilities and transportation agencies provide an important example of government regulation of business. In no other field of economic activity is public regulation of longer standing. The reasons for this will become clear as the public-utility concept is elucidated.

Gas, water, and electricity, transportation and communication must be available to all members of modern societies. If these services are not forthcoming, law and order, and perhaps even the survival of society, would be endangered. It is easy to see, however, that the universal character of the demand for these services is by no means unique. Also universal is the need for such elemental goods as food, shelter, and clothing. But in these instances the supplies come forth from a variety of relatively small retail and other outlets. In the case of the public utilities and common carriers the service tends to be much more standardized, and it is contracted from large enterprises which often are monopolies.

Economies of Scale. The technology of modern transportation and communication, and of gas, water, and power plants is such that there are opportunities for very substantial economies of scale. A large installation is often capable of supplying cheaper service than a small one, and it tends to operate most efficiently if it sells an output of considerable size. In a situation in which one of such firms may be able to supply low-priced services to a large number of consumers, two of them might incur higher costs in producing the same output and thus discourage

prospective customers. Apart from the economies of scale, there are often additional elements that operate against two or more establishments. There may be enough space for one line of tracks in the streets of a city but not for two. Pipeline or wire systems may not be easily duplicated. Energy provided by nature in a specific locality or region may be more easily tapped by one enterprise than by two. The availability of the services of two telephone companies in the same community would make life uncomfortable for the users, and the discomfort would rise if the number of companies were to increase.

Character of Investments. Thus it has come to be recognized that public utilities and certain types of common carriers can render better service if they are not exposed to competition. In the early days of the railroad age the destructive nature of competition among different companies pushed many a road into bankruptcy. Since the unit of business in these branches of the economy is large, the investments sunk into them represent the savings of many thousands of individuals. Besides being large the investment is also highly specialized and relatively immobile. Railroad tracks are not good for anything except for railroads. A telephone system, once it has been organized, cannot be diverted to any purpose other than the one for which it has been created.

Need for Public Control. The characterized nature of the utility enterprises thus establishes need for special protection by means of public regulation and control. The protected groups include the public at large, or users, as well as the smaller circle of actual or prospective investors. If utilities are permitted to hold positions of monopoly power, the consumers are endangered by the likelihood of abuse of such power. If the investment is large, highly specialized, and immobile, the managerial groups' strength will assume undue proportions in the face of widely dispersed individual investments. In the railroad field the destructive nature of competition provided a powerful reason for regulation. These are the principal factors explaining why the public utilities and railroads for long have been subject to public control.

It goes without saying, however, that the boundary line that separates such enterprises from modern large-scale business is at best extremely vague. Upon investigation, many characteristics of the utilities could be discerned, in a more or less pronounced form, among a wide range of other industries. Their relative freedom from public control is, to a large extent, the result of historical accidents and legal concepts that have singled out for such controls the power, water, and gas plants as well as transportation and communication establishments.

Legal Concept of Public Utility. At common law, it has long been recognized that certain businesses are "affected with a public interest" and thus stand in need of public regulation, which by the very fact of such need becomes lawful. As noted in Chapter 16, above, the railroads,

other common carriers, and public utilities were considered the principal examples of such businesses, because they operate under the authority of a public grant of privileges. Such grants, the courts held, impose on the grantee the duty to render service to any member of the public. The first decisions of the Supreme Court which declared railroads subject to public regulation were rendered on the occasion of the so-called Granger legislation of the 'seventies, midwestern state laws that in response to popular demand had set up regulatory controls over railroad companies.[1] At the time when these cases reached the Supreme Court, this tribunal was also investigating the constitutionality of an Illinois statute which prescribed maximum charges for the storage of grain. Many of the grain shipments that passed through Chicago had to be unloaded and reloaded there. Elevators were under the control of nine firms. These, the Court found, stood in the very gateway of commerce and took toll from all who passed. Their business was considered to be affected with a public interest and the regulation of the state was upheld.[2]

As the years went by the concept of business affected with a public interest came to include an ever-widening group of enterprises. Generally, however, the concept was used to vindicate the regulation of industries that sold in noncompetitive markets. In effect, it was designed to protect those who bought in such markets. But this dividing line between businesses that could and that could not lawfully be regulated, tenuous as it was, was dropped during the Great Depression, when a New York statute, fixing milk prices, was upheld. In this case the regulation was imposed on an industry otherwise ruled by the forces of unrestrained competition. Thus the judicial trend has widened considerably the range of businesses susceptible to public regulation, which is regarded unconstitutional only if arbitrary, discriminatory, or demonstrably irrelevant to the policies which it is designed to promote.[3]

Also widened is the range of interests which may be protected by regulatory devices. As was true in the past the protected group may be composed of the users. Or it may be made up of the investors. Or it may be the public at large, in a wider sense than before, that is to be the beneficiary of the regulation. This is especially important when regulation is used as an instrument of general economic policy: to relieve a distressed industry, to provide employment, or to promote investment.

The great expansion of public regulation and its sanction by the Supreme Court makes it appear doubtful whether the concept of a public utility has retained significant meaning. As the tribunal puts it, "the use of that term in a context of generality wears an appearance of precision

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[1] Granger cases, 94 U.S. 155, 164, 179, 180, 181 (1877).
[2] *Munn* v. *Illinois*, 94 U.S. 113 (1877).
[3] *Nebbia* v. *New York*, 291 U.S. 502 (1934).

which proves illusory when exact application becomes necessary."[4] If milk distributors are subject to regulation not substantially different from that applied to gas, electric, and water plants, and common carriers, should the concept of public utilities be widened to include all businesses affected with a public interest? And if it is interpreted in this way, what sense is there in retaining it? The traditional utility concept was relatively clear-cut, embracing primarily gas, water, and electric plants; the concept of a business affected with a public interest is extremely vague, being determined chiefly by the view of the legislature concerning the desirability of regulation for a specific industry. Whenever such regulation is established the business is considered as affected with a public interest.

The Supreme Court, without giving a definitive answer to the questions posed in the preceding paragraph, has set up three possible methods of defining a public utility. The first would consider as public utility any business that generally and traditionally is regarded as such, irrespective of actual public regulation. The second would include any business that actually is regulated as utility, regardless of the traditional classification. The third would limit the concept to those businesses which are of the traditional utility character and which are actually regulated.[5]

Chief Justice Vinson, when Chief Judge of the Emergency Court of Appeals, listed the following "attributes and characteristics"of public utilities. (1) They must be affected with a public interest. (2) They must have certain characteristics which justify their classification into a subgroup of the larger class of businesses affected with a public interest. Such characteristics are their intimate connection with processes of transportation and distribution. Transportation in this sense includes the movement of power, water, gas, etc., as well as communication. (3) The business must be under obligation to afford its facilities to the public on demand, at fair and nondiscriminatory rates. (4) The business enjoys in a large measure independence and freedom from competition, brought about either by the acquisition of monopoly status, or by the grant of franchise or certificate from public authorities placing it in this position.[6] According to this view, business affected with a public interest is the wider concept. Businesses affected with a public interest are public utilities if they are intimately connected with the processes of transportation, in the widest sense, and distribution. But since both the public utilities and the businesses affected with a public interest are subject to public regulation, the distinction is one of limited practical significance and should not serve as a basis of important decisions.

[4] *Davies Warehouse Co.* v. *Bowles*, 321 U.S. 144 (1943).

[5] *Ibid.*

[6] *Davies Warehouse Co.* v. *Brown*, 137 Fed. 2d 201 (1943).

REGULATORY AGENCIES

Local Agencies. Initially the control over common carriers and public utilities was exercised by local organizations. They granted so-called "franchises," often exclusive in character, which enabled a concern to carry on the enterprise in question. Such franchises were usually limited in time; and while they protected the concern during the period of the grant from the competition of newcomers, they also made it liable to the regulation of rates and service by the local authority.

State Agencies. With the passage of time, railroads, other common carriers, and public utilities came to assume increasing significance. Economic development, technological progress, and the advance of industrialization opened up an era in which the operations of public utilities were of more than local concern. State governments responded to the need for control by establishing regulatory agencies, most often called railroad or public service commissions. Organizations of this type exist in the great majority of all states. While they have contributed a great deal to effective regulation, they have been often hampered by lack of funds, inadequate personnel, and insufficient stamina to cope with the corporate giants that are active in the utilities and transportation field.

Federal Agencies. Only the interstate activities of transportation and public utility companies are subject to regulation by federal bodies. The first federal agency to enter the field of railroad regulation was the Interstate Commerce Commission, established in 1887 by a statute later referred to as the Interstate Commerce Act. This Commission has regulatory functions primarily in the field of transportation. It regulates the business of the railroads, motor carriers, inland water carriers, and of pipelines not carrying natural gas.

Authority over water carriers in foreign commerce is vested in the Federal Maritime Board, created in 1950 as successor to agencies first organized thirty-five years earlier. Air transportation is under the jurisdiction of the Civil Aeronautics Board, established in 1938 and reorganized in 1940. Water power, electric companies, and natural gas are controlled by the Federal Power Commission, created in 1920 and substantially reorganized in 1930 and 1935. The telephone, telegraph, broadcasting, and television business is under the supervision of the Federal Communications Commission, established in 1934.

There are a number of other federal agencies whose operations directly and indirectly affect the business of public utilities. These include the Securities and Exchange Commission, the Rural Electrification Administration (now in the Department of Agriculture), the Federal Trade Commission, the Tennessee Valley Authority (a government corporation), and the Boulder, Columbia River, and Central Valley improvement proj-

ects, which operate under the jurisdiction of the Departments of the Interior and of the Army.

The Interstate Commerce Commission, Federal Power Commission, and Federal Communications Commission all are independent agencies, a "fourth branch" of the government, as it were. They are quasi-judicial tribunals in that they are entrusted with the decision of concrete issues. But they are also regulatory organizations to which the power to make general rules has been delegated. Whether the independent agencies are really "independent" is a question that has often been raised in recent years when many of them have come under fire because of susceptibility to pressure and other irregularities. Students of public administration have also raised the related question whether it is feasible and desirable to maintain the formal independence of the agencies from the policy-making function of the executive. Some have proposed that the bulk of their work be transferred to regular departments, including a Department of Transportation to be newly formed, and that their quasi-judicial functions be assigned to newly constituted administrative courts. Judgment about the merits of these proposals is a matter that must be left to experts in government and public administration.[7]

A related matter that has come under fire in recent years is the manner in which television channels are awarded to licensees by the Federal Communications Commission. For a given locality only a limited number of such channels are available, and there is much rivalry among the applicants for a license. By the grant of a license the Commission, with the stroke of a pen, as it were, creates an intangible property which is often worth millions of dollars and which the licensee can sell. An arrangement such as this invites favoritism. It might be preferable to dispose of the licenses in another manner, perhaps by competitive bidding. Again other measures have been proposed to improve the content and the quality of television and radio programs, but here, too, the Commission has shown neither foresight nor initiative nor has it made use of its power of refusing to renew licenses. The television business is tightly controlled by the networks, over which the Commission has no jurisdiction. Instead the personnel of the Commission is reported to be intimidated by the networks, which control the opportunities for private employment. It may be that programs could be improved if they were exposed to the competition of "pay-TV," which is

[7] For a discussion of some of these problems, see Bernard Schwartz, *The Professor and the Commissions* (New York: Alfred A. Knopf, Inc., 1959); Anthony Lewis, "To Regulate the Regulators," *New York Times Magazine*, February 22, 1959, pp. 13 ff.; Peter H. Odegard, "A Case for Scuttling Regulatory Agencies," *Washington Post*, May 1, 1960; House Special Subcommittee on Legislative Oversight, *Final Report*, December 31, 1958; *Report* of Subcommittee No. 1 on Regulatory Agencies and Commissions, to the House Committee on Small Business, 84th Cong., 2nd sess. (Washington, D.C.: U.S. Government Printing Office, 1956); James Deakin, "Freeing Captive Agencies," *New Republic*, July 11, 1960, pp. 13–18.

bitterly opposed by the advertising agencies and networks which are responsible for miserable standards of performance. Pay-TV is often invidiously compared with the present "free" system—which is anything but free but financed by the consumers of the advertised merchandise.[8] In the present context there is no opportunity to go beyond the mere enumeration of these matters and to explore more deeply the economics of the radio and television business.

REGULATION OF PRICES

As regards the common carriers and old-line utility enterprises, the most important regulatory powers are control over prices and income. These matters will be discussed now.

Because of the large overhead in the fields of transportation and public utilities, the return on investment allowed to the companies may constitute a fourth or a fifth of their total revenues—hence its great significance to such companies. Incidentally, there is an important distinction between the regulation of carrier rates and of public utility rates that students are often unfamiliar with. Carrier rates are generally established for carriers as a group. Under these rates, some carriers may make large profits and others little, if any, profits. On the other hand the rates of utilities are set for each utility individually.

Fair Rate of Return on Fair Value. Since the federal and state agencies are bound to observe the identical requirements of the Fifth and Fourteenth Amendments—not to infringe on property rights without due process of law—federal and state regulations have in many respects followed parallel lines of development, guided by the Supreme Court. The state and federal agencies were instructed to set reasonable rates that yielded the owner a fair return on a fair value of his property. The final word on what in the individual case amounted to "fairness" and "reasonableness" was reserved for the Court, however. This was stated in 1898 in the famous decision of *Smyth* v. *Ames*, which for many decades to come supplied guidance to the regulatory bodies in the following words:[9]

> The basis of all calculations as to the reasonableness of rates to be charged by a corporation maintaining a highway under legislative sanction must be the fair value of the property being used by it for the convenience of the public.

[8] See Dallas W. Smythe, "The Position of Pay-TV," *Illinois Business Review*, Vol. XIV, No. 8 (August, 1957), pp. 6–8; W. L. White, "Why Can't We Have Pay TV?" *Reader's Digest*, November, 1958; Robert Horton, "The Economic Squeeze On Mass TV," *Reporter*, April 28, 1960, pp. 14–20; "Monopoly Problems in Regulated Industries," *Hearings* before the Antitrust Subcommittee (Subcommittee No. 5) of the House Judiciary Committee, 84th Cong., 2nd sess., Part 2 on Television, and *Report* of the Subcommittee, on "The Television Broadcasting Industry" (Washington, D.C.: U.S. Government Printing Office, 1957); *Report* of the Attorney General on Deceptive Practices in Broadcasting Media, December 30, 1959; Louis L. Jaffe, "The Scandal in TV Licensing," *Harper's*, September, 1957.

[9] 169 U.S. 546 (1898).

And, in order to ascertain that value, the original cost of construction, the amount expended in permanent improvements, the amount and market value of its bonds and stock, the present as compared with the original cost of construction, the probable earning capacity of the property under particular rates prescribed by statute, and the sum required to meet operating expenses, are all matters for consideration, and are to be given such weight as may be just and right in each case. We do not say that there may not be other matters to be regarded in estimating the value of the property.

By reserving for itself the final decision concerning the conclusive standard for the criterion of reasonableness and fair value, the Supreme Court, in the words of a critical student, became the "first authoritative faculty of political economy in the world's history."[10] At times the court insisted that weight be given to the one or other standards enumerated in *Smyth* v. *Ames* but failed to make clear what constituted proper "weight" or "consideration."

It was not until the forties that the Court, in effect, reversed itself by leaving the adoption of a standard for valuation to the discretion of the regulatory bodies and by refusing to review the method used in arriving at just and reasonable rates.[11] The law, as it stands now, requires that regulation of utility prices be just and reasonable. If the Supreme Court finds the regulation to be so, it will not investigate the method or methods used by the regulatory authorities. The possible methods themselves are enumerated in *Smyth* v. *Ames*. Some of them have been discarded in practice as of little value; others are given greater prominence. The principle which underlies all of them is the determination of a fair value, better called "rate base," and of a fair rate of return on such value.

The Rate Base. The rate base, or the fair value of the property, cannot be measured with the help of the procedure generally used by students of economics to ascertain the value of a capital asset. This procedure considers the value of an income-producing asset as equal to the capitalization of the incomes produced by it. The value can be derived with the help of the formula I/r, where I denotes income and r the rate of interest. Capitalization, in this sense, is a procedure that supplies the answer to the question, "How much is the worth of an asset from which income is derived?" by quoting the capital that must be had in order to earn the income I on the basis of a given rate of interest r. But if applied to utility-rate making, valuation of this type would involve circular reasoning. This is so because I, the numerator of the fraction, is not known or given; it depends, in turn, on the prices the utility will be allowed to charge. These are still to be determined after the value of the property has been ascertained. The probable earning capacity of the property thus is of no help in rate making, because this capacity depends upon what the rate is.

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[10] John R. Commons, *The Legal Foundations of Capitalism* (New York: Macmillan Co., 1924), p. 7.

[11] *Federal Power Commission* v. *Hope Natural Gas Co.*, 320 U.S. 591 (1944).

Also the amount and market value of stocks and bonds of the concern are irrelevant. It may happen that the amount of stocks and bonds is equal to the value of the property, but there is no general principle on which to base such equality in one and every case. Stockwatering and overcapitalization[12] would operate against it. As to the market value of stocks and bonds, this depends on earnings; and these cannot be made the basis of a valuation that in turn will determine them. "The sum required to meet operating expenses," another of the valuation standards mentioned in *Smyth* v. *Ames*, is obviously unrelated to the value of the property.

There remain, as the principal alternatives, the original cost of producing the property and the cost of reproducing it, as possible criteria of value. It is these standards, indeed, which have attained most prominence. Under the original-cost standard, consideration is given to the actual outlay made when the plant was constructed. Under the reproduction-cost standard, emphasis is placed on the hypothetical outlay that would be incurred if the plant were constructed now. From the sum calculated with the help of either standard, there must be deducted an amount reflecting the depreciation of the property. The original-cost standard has at times been modified by the subtraction of unwise, extravagant, or fraudulent expenses; the resulting standard of "prudent investment" was considered to reflect more properly the cost which should be allowed in the determination of the burden to be placed on the public.[13]

Arguments in favor of either the original-cost or the reproduction-cost standard can easily be found. Consideration of the cost of production is desirable from the point of view of the investor; it makes for stable rates and can often be based on adequate data, provided a careful account is kept of the original outlay. Cost of reproduction, on the other hand, seems preferable if there are no reliable accounts; furthermore, so its exponents hold, it would reflect more properly the changing value of money and thus prevent a disproportionate development of utilities prices relative to other prices. There are numerous other arguments which can be adduced in support of either standard. In fact, most students seem inclined to the view that there is no universal criterion for the validity of either standard seen in isolation. During periods of rising prices, utilities tend to favor the reproduction-cost standard, while the spokesmen of the public support original cost. During periods of falling prices the arguments reverse. The Supreme Court, before the Hope case, generally insisted that both standards be given consideration, a view that has been characterized as compromising the ideal of logical consistency in favor of a formula that apparently reconciled conflicting interests.

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[12] Just as a dishonest seller of cattle might inflate the weight of his goods by excessive watering, so stocks might be "watered" by issues in excess of the value of the assets of the corporation, resulting in "overcapitalization."

[13] The standard was proposed by Justice Brandeis in *Southwestern Bell Tel. Co.* v. *Public Service Commission of Missouri*, 262 U.S. 306 (1923).

The Rate of Return. To determine reasonable or fair return the rate base must be multiplied by a fair rate of return. The selection of the rate is an extremely important element in the regulatory procedure. Take, for example, a property valued at $1 million. The selection of a rate of 5 or 6 per cent will mean a difference of 20 per cent in the return, which, in the first case, will be $50,000 and in the second $60,000. The fair rate of return generally reflects the prevailing rates of interest, preferably those payable on securities of the utility or other market rates. In recent years, there has been a tendency to set the fair rate of return on the basis of the cost of capital in the light of a statistical analysis of precise data obtained from the bond and stock markets. A fair rate is thus not determined uniquely once for all time but is subject to variations. Tests often adopted in the appraisal of the fairness of a rate are its adequacy in attracting investments and its similarity with rates earned in comparable enterprises. In 1930 the Supreme Court considered a rate of 7½ per cent unduly low; nine years later, 6 per cent was found acceptable.[14] It goes without saying that these court decisions contain no guarantee that such rates will actually be earned.

Airlines usually are allowed a higher rate of return than other regulated industries, their rate having been set at 10½ per cent by the Civil Aeronautics Board in 1960. In the same year the Federal Power Commission granted a pipeline a rate of 6½ per cent.

Since the Hope case, the problem of rate of return has been given much more attention and that of the valuation of the rate base much less than was previously the case. Many commissions regulate on an original-cost basis, and adjustments for inflation are at times made by allowing a higher rate of return. As the interest rate has risen during the 1950's, so have allowable rates of return.

Railroad Rates. The regulation of rates by the Interstate Commerce Commission is subject to somewhat more definite principles than those established by the concept of fair return on fair investment. The Commission is bound to give consideration to the following factors: (1) the effects of the rates on the movement of traffic; (2) the need, in the public interest, for adequate and efficient transportation service at the lowest cost that is consistent with the furnishing of such service; and (3) the need for revenues sufficient to enable the carriers, under honest, economical, and efficient management, to provide such service. The Transportation Act of 1958 supplemented these principles by prescribing a new rule of competitive rate making for application to different types of carriers—railroads, motor carriers, water carriers. Under the new rule the rates of one carrier shall not be held up to a particular level to protect the traffic of any other mode of transportation. This innovation is likely to benefit the railroads by enabling them to assert their inherent advantage in bidding for traffic.

[14] *United Railways* v. *West*, 280 U.S. 234, 252 (1930); *Driscoll* v. *Edison Co.*, 307 U.S. 104 (1939).

Railroad rates are in fact the result of an intricate and complex procedure that can be described here only in rough outline. This does not apply to the passenger fares; they are uniformly constructed on a mileage basis, and no special problems arise in their determination. But passenger fares supply less than 10 per cent of the railroads' revenues. The bulk of these is derived from freight charges. Railroads generally lose money on the passenger business. This loss cuts deeply into the net revenue from freight service.

Freight rates are determined by means of antiquated and cumbersome processes which are subject to great variations by region, company, locality, and commodity. Rates are generally determined jointly by the roads of a given region through so-called "freight associations" or bureaus. For the purpose of freight rate determination the country is split into five major rate territories, all of which have different rates. The rate territories are:

1. Official Territory, located east of the Mississippi and north of the Ohio and Potomac Rivers.
2. Southern Territory, south of the Official Territory and east of the Mississippi.
3. Western Trunk Line Territory, located approximately between Official Territory and the Rocky Mountains.
4. Southwestern Territory, which lies south of Western Trunk Line Territory and west of the Mississippi and includes Arkansas, Texas, Oklahoma, and part of Louisiana.
5. Mountain Pacific Territory, which includes Montana and New Mexico, and all territory west of the Rockies.

By type, rates are either commodity or class rates. Commodity rates apply to over 90 per cent of all freight; they are special rates established for raw materials and other less highly processed goods. The rates for those commodities which have not been given a commodity rate are determined according to a grouping of the various commodities by classes and are therefore called class rates.

Class rates are thus based on classification. A freight classification consists of a list of thirty classes or ratings that are numbered according to their repective percentages of class 100. Only during the last few years did the Interstate Commerce Commission succeed in having a uniform system of freight classification adopted throughout the whole country, a task considered important as early as in the first annual report of the Commission, dating from 1887. Before the uniform system was introduced the situation was complicated by the existence of three different systems, Official, Southern, and Western, in the respective regions of the country. Before World War I, there was not even uniformity within each of the three classifications.

The cost of shipment for which no commodity rate is established is determined by ascertaining its classification rating, the class 100 or first-

class rate per 100 pounds of the haul involved, and the percentage of the first-class rate to which the classification rating in question is subject.

Rates are generally determined according to the so-called "tapering" principle; that is, they increase less than proportionately to distance. Railroads, however, on principle are forbidden to charge less for a long haul than for a shorter one; although, as will be seen, under certain circumstances exceptions from this rule may be permitted.

Contrary to popular belief, railroad rates are not prescribed, and neither are all rates approved, by the Interstate Commerce Commission. They must be filed with the Commission and will go into effect thirty days later, unless the Commission, on complaint or on its own motion, suspends them. Rates that have been suspended generally are investigated for approval or disapproval; but of the two hundred rates or so which are filed every day, less than 1 per cent are suspended.[15] When an investigation is made the Commission will consider the need for adequate and efficient transportation service at the lowest cost, the need for revenues sufficient to enable the carriers to provide such service, and the effect of rates on the movement of traffic by the carrier or carriers for which the rates are prescribed.

Many students consider the policing of railroad rates as by no means perfect, especially in view of the dangers inherent in the collective rate making practiced by the companies of the different regions. The structure of freight rates has resulted in sectional complaints insisting that rates work to the disadvantage of certain regions, especially the South and the West. While the Supreme Court has applied the Sherman Act to railroad combinations since 1897, the activities of the rate bureaus were not prosecuted until the forties, when the Department of Justice started antitrust proceedings against a number of Western railroads. In the meantime the railroads were active in impressing Congress with the need for special legislation. The Reed-Bulwinkle Bill, passed in 1948 against the opposition of the Department of Justice and over a presidential veto, exempts common carriers from antitrust prosecution in connection with rate agreements approved by the Interstate Commerce Commission. The Commission is instructed to approve a rate agreement unless it is deemed inconsistent with the national transportation policy.[16]

Discrimination. The monopolistic character of public-utility enterprises and common carriers and the nature of the demand for their services enables them to charge discriminatory prices. Public policy has tolerated instances of "reasonable" discrimination in railroad and utility rates, although certain practices are considered undesirable and remain forbidden.

[15] Interstate Commerce Commission, *73rd Annual Report* (Washington, D.C.: U.S. Government Printing Office, 1959), pp. 36 f.

[16] For a critique of similar legislation which had failed to pass the Congress in earlier years, see Arne Viprud, *Justice in Transportation* (Chicago: Ziff-Davis Publishing Co., 1945). For a defense, see Charles D. Drayton, *Transportation Under Two Masters* (Washington, D.C., National Law Book Co., 1946).

Price discrimination, it will be remembered, can be practiced only if a monopolist or a firm operating under restricted competition has the power of classifying its customers and only if the commodities or services that are sold are not negotiable in the sense that one buyer can transfer them to another. If they were transferable, a favored buyer could do the buying for those who are charged a higher price. No such transferability exists in the case of the services of railroads or public utilities. Gold, for which the freight rate would be high, cannot be shipped in the guise of coal; a household cannot purchase its electricity as if it were an industrial enterprise.

Price differentials may or may not reflect differences in cost. Differential pricing is discriminatory only if the price differentials are not the same as the differences in cost of production. Price discrimination is profitable because the monopolist can add to his revenue by varying his charges if buyers display different degrees of elasticity in their demand. The monopolist will then exact a higher price in the less elastic market where the demand is more urgent and a lower price in the more elastic market where this leads to a considerable expansion of sales.

Now, if the total volume of sales is larger than it would be under a uniform price, it may well happen that this volume can be produced at lower cost than would be possible without price discrimination. Average charges may thus be reduced below the level that would prevail in the absence of price discrimination. This is one reason adduced in support of price discrimination in the utility and railroad fields. It is based on the presumable nature of these industries as characterized by decreasing cost of production, resulting in unit costs of larger outputs far below the unit costs of smaller outputs. If there are groups of buyers, separable from other buyers, whose demand for the services of the monopolist is highly elastic, a large increase in output and reduction in unit cost can be obtained by favoring them with lower prices or rates. At a uniform price, these customers presumably would utilize the monopolist's services not at all or only to a small degree.

Discriminatory pricing of this sort is often referred to as charging "what the traffic will bear." This phrase does not imply that the highest price is charged which the monopolist can exact. Nor is it the monopoly price proper that would equate marginal cost with the marginal revenue derived from the collective demand of potential buyers. It is rather a system of multiple prices determined on the basis of the different demand schedules of prospective users in a way that will maximize their contribution to fixed or overhead costs. It is apparently true that under this system the user who is charged a high price subsidizes the low-price user. But the desirability of such arrangements must be appraised in the light of the possibility that the price, if uniform, might still be higher than the highest discriminatory price. At such uniform price the low-price user might be discouraged from buying the service, and his contribution to the overhead cost would have to be

exacted from the other customers. To put it another way: Any additional business that yields more than the cost of production contributes by that much to covering the firm's fixed costs, and thereby lightens the burden on the other customers. Thus it is true that the regular customers pay more than these additional customers, but they also may pay less than they would if the new business had not absorbed some of the fixed costs.

In the railroad field, charging what the traffic will bear has led to discriminations between persons, places, commodities, and long and short hauls. Personal discrimination would exist if, for example, the Ford Company were charged lower rates than General Motors. Such practice is illegal. Discrimination between places or regions would exist if the rates charged to shippers in one place or region were lower, relative to the cost of service, than the rates charged to shippers elsewhere. This is done, for example, if California orange shippers pay a lower rate per mile to the East than Florida shippers. Discrimination between commodities means that the rates for commodities of equal specific weight and equal costs of handling differ. For example, the rates for materials of low value per unit of weight are usually lower than the rates for more valuable commodities. For this reason, raw materials are usually transported at lower rates than semifinished articles. Discrimination according to the length of haul was practiced when a shipment to the end of the line was cheaper than one to an intermediate destination.

As a rule, laws prohibit "unjust" discrimination. Proper classification forms the essence of the problem. In cases before courts or commissions the question is asked, "is this classification of customers for rate-making purposes a reasonable one?" Discrimination, in this sense, between persons, places, and commodities is lawful within the limits established by the Interstate Commerce Act. The determination of commodity rates, which apply to the greater part of all freight, is often discriminatory. The rules of the law are extremely vague, making unlawful "any undue or unreasonable preference or advantage" to any particular person, firm, locality, or region, and any "undue or unreasonable prejudice or disadvantage." The reasonableness of a discrimination will be determined by the Interstate Commerce Commission. Discrimination between places will generally be unlawful if the localities are in the nature of rivals and if the rate does actual injury to one of them. The same principle has been applied to discrimination between commodities: such discrimination is unlawful if the commodities are competitive and if the disproportionate rate causes actual injury to the complaining party.

Is a carrier allowed to discriminate against shipments moved by a rival mode of transportation, say, a railroad against a barge line? To reach a transfer point, it may be possible to ship a commodity either by rail, or by barge, which is cheaper. At the transfer point the journey is continued by rail, with the railroad company charging a lower rate for shipments that

arrive by rail than for those that come in by barge. This attempt to discourage shippers from the use of a cheaper mode of transportation was upheld by the Interstate Commerce Commission, which in turn was overruled by the courts, holding unlawful "any rate-making device which deprives barge transportation of its rightful place in the national transportation system or which deprives shippers of any part of the economies resulting from the use of barge transportation."[17]

There is a long legislative and judicial history of short-haul discrimination. As the law stands today the Interstate Commerce Commission may permit a railroad under certain circumstances—for example, to meet the competition of truck or water carriers—to charge less for a long haul than for a short one over the same route in the same direction.

As mentioned, many rate differentials are not discriminatory in that the cost of service justifies differentiated prices. Carload shipments entail less cost per ton than less-than-carload shipments, and this is duly reflected in the rates charged. Bulky commodities, taking up more space per ton and causing also higher cost of handling per ton, would surely justify higher rates per ton.

Discriminatory rates of electricity, gas, and water works are the result of a classification of the services they provide which is not unrelated to that fostered by the railroad companies. Apart from such "class prices," public utilities practice discrimination by type of buyers in the form of "quantity-discount prices." To a still greater extent than is true of the railroads, utilities tend to justify price discrimination by insisting that otherwise their capacity would remain unused. The services of utilities are not purchased in even quantities. Demand is high at one time and low at another. This causes the load factor, or the ratio of the actual output to the theoretically possible output, to be far below 100 per cent during certain periods. If such off-peak capacity can be utilized and the load factor improved, the sales incidental thereto can be transacted at lower prices.

In the utilities field, considerations of demand elasticity generally are used for the justification of discrimination in favor of industrial customers. Their demand, it is claimed, is more responsive to price cuts than that of domestic or commercial users. These, on the other hand, will be not easily induced to turn to inferior substitutes if prices are kept fairly high. But, as will be seen, this argument misses an important point. Experience, especially during the past decades, has shown that the demand for domestic use is highly elastic if prices move downward.

CONTROL OVER FINANCIAL AND OTHER POLICIES

Financial Policies. The control over railroads and public utilities is not limited to their prices and their business policies in relation to the users but

[17] *Interstate Commerce Commission v. Arrow Transport Corporation*, 361 U.S. 353 (1960).

extends to the financial practices of such concerns. Accounting procedures have become more and more standardized. Capital structures of the companies, their dividend policies, and intercorporate relationships are subject to various regulatory devices depending upon the type of concern involved. Regulation of this sort is not exclusively designed to protect investors, but it is also in the interest of the users that the companies' financial policies are sound. Overcapitalization through stock-watering and other devices may require excessive earnings to support the inflated capital structure. The need for such earnings will tend to step up rates and may entail deterioration of service. If bonds are issued in unduly large amounts relative to stocks, the need to meet fixed charges rather than dividend payments will operate in a similar direction. If the company is a member of a vast corporate network of utilities or railroads, it may be exploited by the holding company to the detriment of its users and of the legitimate financial interests that are attached to it.

The financial policy of utilities is under the control of the Securities and Exchange Commission. Adverse experience with public-utility holding companies has ushered in provisions designed to prevent gross abuse of this form of combination. Under the Holding Company Act of 1935, certain utility holding companies were dissolved, merged with their subsidiaries, or made to sell the voting stock in their subsidiaries. Under the Act, holding companies were to be reorganized into integrated systems; that is, the subsidiaries are to be kept together by technological or economic ties rather than primarily with the help of financial manipulations.

In the railroad field, issues of securities have been controlled by the Interstate Commerce Commission since 1920. This control could not prevent the necessity of reorganization procedures under the Bankruptcy Act, which a large number of railroad companies had to undergo. Section 77 of this Act, added in 1933 and amended in 1935, set up special proceedings in railroad cases, calling for the participation of the Interstate Commerce Commission to secure adequate protection for the various financial interests involved. Under such procedures the long-term debt of the American railroads was cut nearly in half, an arrangement that was painful to numerous investors but which has considerably lessened, if not entirely eliminated, the previously existing overcapitalization.

Railroad Mergers. Public attitude toward consolidations of railroad companies has changed considerably. The early combination movement was viewed with much alarm, because it threatened to eliminate railroad competition, considered the principal instrument of protection for the public. On occasion, railroad combinations were prosecuted under the Sherman Act and holding companies ordered to divest themselves of the stock in subsidiaries. Interlocking directorates among railroads have been discouraged since 1920. Pooling agreements, in which traffic or receipts from traffic are divided among potential rivals, are lawful if approved by the

Interstate Commerce Commission; but not much use is made of this device. Rates, as has been seen, are customarily fixed jointly by the carriers operating in a given territory.

In more recent decades the view has gained prominence that in the presence of adequate controls there is little interest of the public in parallel lines which may compete but by doing so find it difficult to make ends meet. Since 1920 the consolidation of railroads has been promoted by legislation. Under the 1920 Act, the Interstate Commerce Commission was directed to formulate adequate plans for the consolidation of railways into a limited number of systems. Consolidations were considered lawful if they met certain requirements, including approval of the Commission and compatibility of the program with an over-all plan. Consolidation was never made mandatory, however, nor was there any control of railroad combinations using the holding-company device. But in 1933, regulation was extended to apply to all combinations and unifications, regardless of their legal form. The requirement that consolidation, to be approved, had to conform with the Commission's over-all plan proved a deterrent, however. In 1940 the Commission was instructed to approve railroad consolidations regardless of such compatibility, if only they were consistent with the public interest. In a unique manner the 1940 legislation protects railway labor threatened by the loss of jobs on account of consolidation. As a condition for its approval of a planned consolidation, the Commission must require that there be a "fair and equitable arrangement" to protect the interests of railway labor. For a period of four years subsequent to consolidation, employees are, in effect, guaranteed the maintenance of their status.

Very few important railroad mergers occurred between the Great Depression and the late 1950's, when there was a resumption of interest in the matter.[18] Discussions of mergers, which in some cases had been going back to the beginning of the century were revived, an increasing number of mergers was consummated, more were contemplated, and temporarily at least there was even talk of a merger between the Pennsylvania Railroad and the New York Central, the two largest in the country. Most of the new mergers involve the consolidation of parallel-line facilities rather than so-called "end-to-end" mergers. They occur in a piecemeal fashion rather than in accordance with an over-all plan as it was hoped by those who drafted the 1920 legislation. As a rule, they are no longer considered a threat to the public interest because the railroads as such have no longer a monopoly in transportation and the competition among individual railroad companies has become of lesser importance than their competition with different types of carriers. The principal interests that may run counter to

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[18] *Consolidations and Mergers in the Transportation Industry,* Report from the Association of American Railroads to the Transportation Study Group under Senate Resolution 29 (February, 1960); "New Ties on the Railroads," *Fortune,* August, 1960, p. 64.

mergers are those of the railroad unions, which, however, enjoy an unusual measure of protection, and of local people who resist the idea of a one-railroad town. There are, of course, other factors that may make the consummation of a merger a difficult matter, such as the different debt structures of the roads. The bondholders of one road, for example, may be protected by strong liens which they do not want to see diluted as a result of the consolidation of the debts of the various companies.

Transport Diversification. Regardless of these difficulties, however, the economies which can be attained by eliminating duplicate facilities are so pronounced that the marger movement is likely to make much headway in the years to come. The railroad companies are eager to expand it through the acquisition of other types of transportation facilities, especially motor carriers, to attain what is known as transport diversification.[19] So-called "through routing" of a shipment may involve the use of various types of carriers, and if these can be brought under one management, the efficiency of the service, the railroads claim, would be much improved. There are various legal restrictions on the acquisition, by the railroads, of interests in other forms of transportation, and the railroad companies want to have these restrictions relaxed. However, others point out that the control of one mode of transportation by another is not needed to utilize new techniques of freight handling such as the rapidly growing "piggyback," where trailer trucks travel on railroad flat cars, as well as "fishyback," with trailers and flat cars traveling on ships, and "birdyback," where special containers are moved by plane.[20] To facilitate the use of various types of carriers, an increasing number of railroads have concluded joint-rate agreements with highway and water carriers which enable the shipper to make use of through routing and to send his goods on one bill of lading.

Control of Entry and Exit. The establishment of new enterprises in the utility and railroad fields has traditionally been subject to public control. Before a new firm in the utility field may start operations, it must obtain from the Public Service Commission of the state a so-called "certificate of public convenience and necessity," which has taken the place of the formerly required local franchise. In some jurisdictions both franchise and certificate are issued. Unlike the franchise the certificate generally is valid for an unlimited period of time. While there is no guarantee attached to it that rival companies will not receive similar certificates, in actual practice the Commissions restrain competition by issuing certificates that, in effect, are exclusive. The possibility, however, of the admission of a rival is an inducement to efficiency on the part of the grantee.

[19] *Transport Diversification.* Report from the Association of American Railroads to the Transport Study Group Under Senate Resolution 29 (January, 1960).

[20] "Piggyback Spurt," *Barron's*, May 14, 1960, pp. 11 ff.; Harold L. Johnson, *Piggyback Transportation: An Economic Analysis* (Atlanta, Ga.: Georgia State College of Business Administration, 1956).

The authorization of new service in the railroad field is of little practical significance, because the railroad net has expanded only to a very limited extent after the year 1900 and is now less in mileage than it was in 1910. In the fields of motor and air transportation the power of the regulatory agencies to authorize or deny new service is of much greater importance, because in these fields there is more vigorous expansion. On the whole, there is a tendency in each of these fields to allow competing service by more than one bus or airline, even though the available service may not be considered inadequate. The market situation of these much more mobile transportation agencies is quite unlike that of the railroads, where competition by several lines might possibly spell ruin.

The investment control scheme is rounded out by the public regulation of the abandonment of utilities and railroads. While it is impossible to enforce the continuation of service on the part of a company that cannot make ends meet or has exhausted the natural resource on which its service was based, Commissions are authorized to check the partial abandonment of activities that have become unprofitable or which the concern wishes to discontinue for other reasons. This authority is of especial significance in the case of railroads.[21] For this reason, railroad abandonments are authorized by the Interstate Commerce Commission only after careful investigation in which the burden which would be imposed upon the railroad by continued operation is compared with the burden on the public resulting from its abandonment. In general the Commission has been generous in consenting to abandonments, largely because most of the mileage that was to be abandoned received service from motor carriers. State authorities have on the whole been much less generous, being subject to greater local pressure, so much so that it was necessary to restrict some of their functions in this matter in the Transportation Act of 1958 and authorize the Interstate Commerce Commission to overrule them. Obviously the abandonments cut into the job opportunities of railway labor, and the railway unions, which wield great political power, have started out on a program designed to make the most of the legal hurdles to the shutdown of facilities.

TRANSPORT CO-ORDINATION

Federal regulatory action in the transportation field, we have seen, was originally designed to control monopoly as well as abuses of competition in a field which did not seem to lend itself to this form of market organization. After World War I the objectives were expanded to include the financial health of the carriers. Still later, there arose the problem of interagency competition among different transportation facilities. The task then became a twofold one of protecting the financial health of the regulated carriers

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[21] A. J. G. Priest, "Discontinuance of Railroad Service," *Public Utilities Fortnightly*, May 8, 1958, pp. 3–12.

and securing adequate service to their users, as well as providing opportunities for service by the newly emerging types of transportation facilities. Hence, in 1935 motor carriers were placed under federal regulation, which, in effect, restricted the supply of their services and thereby afforded protection to the railroads. Public control was transformed from the single-purpose regulation of a single industry to a far-flung pattern of positive rather than punitive action.

The rise of motor and air transportation, the revival of water transportation as a result of river valley development schemes and the like, and the maturity of a large railroad net have created the problem of transport co-ordination. The various transportation facilities are in the nature of more or less adequate substitutes that compete for freight and passengers. In the past, many students of transportation problems believed that co-ordination was required in order to eliminate waste resulting from an over-all excess capacity of the various carriers. The problem was much accentuated during the thirties, when business was slack and the volume of traffic low. During World War II and the subsequent boom period, there occurred, however, so unprecedented an increase in the volume of traffic that not retrenchment but orderly expansion became the watchword of the day. The co-ordination problem, nevertheless, concerns public policy, because in one form or other almost all of the various carriers benefit from public subsidies. Subsidization disturbs the pattern of rates and transfers transportation cost from the user to the taxpayer. In the case of the railroads, subsidization has come to an end; it existed during the early period of expansion when large grants were made to railroad companies out of the public domain. There are those who would object to the characterization of land grants as subsidies, because railroads were committed, in return, to accord lower rates to the federal government. Over the years, these rate allowances reached large amounts; and, in retrospect, what had been called a subsidy appeared as advance payment of freight by the government. The cheap land grant rates have now been abolished by legislation.

The tables have been turned now; and the railroad companies find themselves exposed to the competition of water, motor, and air transportation agencies, which all enjoy public subsidies of one form or other. These agencies, so the spokesmen for the railroad companies claim, not only receive subsidies but also are less stringently regulated than the railroads.

Co-ordination of transport is made difficult by the multiplicity of regulatory bodies and by exemptions in favor of certain types of transportation facilities. The Interstate Commerce Commission, for example, has little authority over certain for-hire motor carriers, over water carriers of bulk commodities, over private motor or water carriers which carry their own wares, and over contract carriers—that is, persons or business firms that engage in the transportation business for compensation under individual contracts or agreements. The Civil Aeronautics Board has exempted certain

nonscheduled operations of airlines which lately have become very important. Often such exemptions are felt as a burden by the fully regulated common carriers, which are deprived of profitable business by the nonregulated or less severely regulated ones—the latter being in a position where they can concentrate their operations on the most profitable types of business while the regulated ones are not allowed to pursue such business policies.

INTERCITY FREIGHT TRAFFIC IN THE UNITED STATES, 1939–59

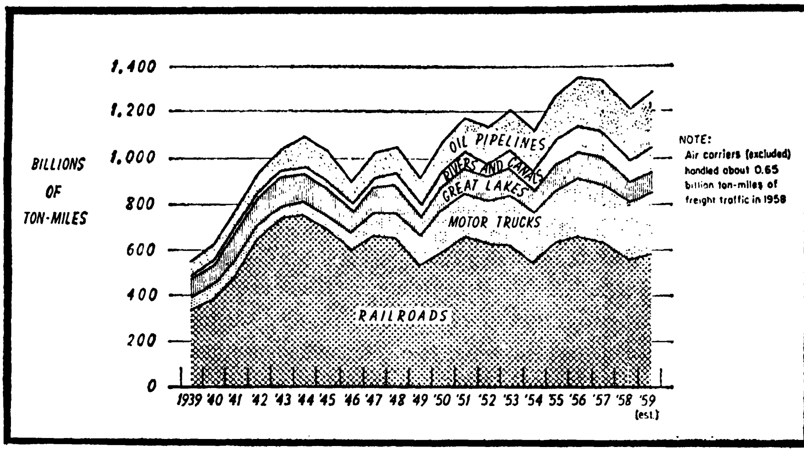

FIG. 45. The railroads still carry the bulk of all intercity freight traffic, but their relative importance is on the decline. From Association of American Railroads, *A Review of Railroad Operations in 1959*, p. 44.

Proposals for more effective transport co-ordination include the establishment of a federal Department of Transportation as well as a number of specific reforms, a few of which were adopted in the Transportation Act of 1958. This act strengthened the authority of the Interstate Commerce Commission over some hitherto unregulated transactions, facilitated the abandonment of railroad mileage, and extended assistance to the railroads in other ways. By that time increasing attention was drawn to the economic position of the railroads.[22]

[22] See *Revision of Federal Transportation Policy*, A Report Prepared by the Presidential Advisory Committee on Transport Policy and Organization (Washington, D.C., April, 1955); U.S. Department of Commerce, *Federal Transportation* Policy and Program (Washington, D.C.: U.S. Government Printing Office, 1960). For a review of the 1955 Report see James C. Nelson, *American Economic Review*, Vol. XLV, No. 5 (December, 1955); that of 1960 is briefly discussed under the title "No Transports" in *Economist*, April 2, 1960, pp. 51 f. See also "Problems of the Railroads," Subcommittee on Surface Transportation, Senate Committee on Interstate and Foreign Commerce, 85th Cong., 2nd sess., *Hearings*, Part 1–3, and *Report* (Washington, D.C.: U.S. Government Printing Office, 1958). See also an article by the Chairman of this Committee, Senator George A. Smathers, "The Railroads Seek a Clear Track," *New York Times Magazine*, April 13, 1958, pp. 11 ff.; David I. Mackie, "The Necessity for a Federal Department of Transportation," *Journal of Public Law*, Vol. VIII, No. 1 (1959), pp. 1–46.

Railroads. The railroads' share in intercity freight traffic, about 75 per cent in 1930, declined below the 50 per cent mark during the second half of the 1950's and has fallen further since then (see Fig. 45). In absolute terms, the railroads' freight business has been holding its own, rising by about 50 per cent between 1930 and 1960 and staying at approximately the same level through the 1950's. In intercity passenger traffic, the railroads' share has declined both relatively and absolutely. The commercial airlines outrank them since 1956, and if travel by private automobile is included in the total, the share of the railroads is less than 5 per cent (see Fig. 46).

INTERCITY PASSENGER TRAFFIC IN THE UNITED STATES, 1939–59

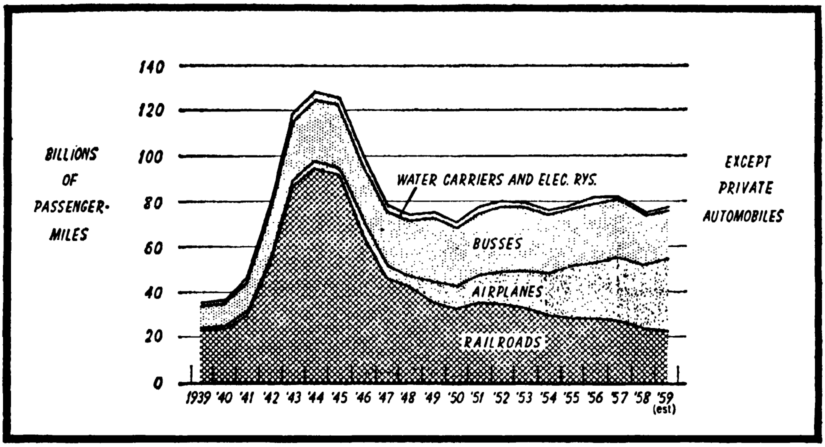

FIG. 46. Airplanes and buses now handle as much or more intercity passenger traffic as the railroads. Note that travel by private automobiles is excluded in this chart. If it were included, the total would be close to 800 billions of passenger miles, about ten times the total shown in the chart. From Association of American Railroads, *A Review of Railroad Operations in 1959*, p. 45.

The financial position of the railroads has steadily deteriorated. Their rate of return on investment fell to 2.72 per cent in 1959, the lowest earned in any year since 1939. Some companies are of course in a better position than others. Those worst off generally operate in the Northeast. They carry a relatively heavier burden of the unprofitable passenger business, maintain still more unprofitable facilities for commuters, and their runs tend to be shorter and more exposed to the competition of other types of carriers than is true in the West. The Western roads also own vast areas of valuable land containing timber and oil, and their nonoperating income from these sources is high.[23]

With the exception of the war years when highway travel was heavily reduced, the passenger business of the railroads has shown a deficit in every year since the 1930's. The exact size of this deficit is a controversial matter,

[23] "Railways in Clover," *Economist*, May 21, 1959, pp. 1066–69.

depending, as it does, upon the accounting method chosen, but about its existence there can be little doubt. It was estimated at $600 million in 1958, the equivalent of 15 per cent of the total operating revenues. This is the estimate under the accounting regulations of the Interstate Commerce Commission, which allocate to the cost of the passenger service not only the expenses directly associated with this service—fuel, wages, maintenance of passenger trains, etc.—but also a proportionate share of the expenses common to both freight and passenger services.

As long-distance travel by railroad has declined severely while the commuting business has held its own, most railroad passengers are now commuters. This type of service is indispensable for a number of large cities. Since the facilities are used only during a few hours in the morning and in the afternoon, five days a week, this type of service is the most unprofitable one.[24] Since 1957 it has been subsidized by an increasing number of cities, which were joined, in 1960, by the state of New Jersey. The best showing is apparently made by the city of Philadelphia, where the subsidy was paralleled by an improvement of service which has attracted new riders from the ranks of the motorists. Since state and local taxes are especially heavy on railroad properties, a reduction of these will also be helpful. In a number of instances it may prove difficult to avert the operation of the commuting service by municipal authorities, which would underwrite the deficit.

Attempts of the railroads to regain a larger share of the long-distance passenger business have not been successful, and there is little hope in this respect for the future. Against the strong resistance of the railway unions, the companies try to make their operations more profitable by reducing what they consider featherbedding and restrictive work rules.[25] These are said to cost about $.5 billion a year, or 10 per cent of the wage bill and almost as much as the profits of the companies ($578 million in 1959). Railway employment has declined from 1.2 million in 1950 to some 800,000 in 1960, and in the face of this, labor is resisting strongly any efforts that would eliminate still more jobs.

In past years, the railroad companies have not always been able to hold their own in their dealings with the strong and politically influential railway brotherhoods. They have now joined in an insurance agreement against strikes, and this might fortify them in their future negotiations with the unions. The insurance will not help in cases of nation-wide or widespread

[24] "The Long Decline of Public Transportation," *Fortune*, October, 1959, pp. 115 ff.; Wilfred Owen, *The Metropolitan Transportation Problem* (Washington, D.C.: Brookings Institution, 1956).

[25] For a statement of the management's case see an address by James W. Oram, Vice-President, Personnel, Pennsylvania Railroad, at American Management Association Fall Personnel Conference, New York City, 1959, reproduced by the Pennsylvania Railroad. The view of the unions may be found in AFL-CIO, *Economic Trends and Outlook*, Vol. IV, No. 9-10 (September-October, 1959), pp. 1-4. See also "Featherbeds on Rails," *Economist*, November 14, 1959, p. 633.

strikes, but in the absence of these it will strengthen an individual company, which, if struck, can recoup its fixed charges from the insurance fund to which all the roads contribute.

As some railroad companies find it difficult to finance the maintenance and purchase of their equipment, the Transportation Act of 1958 authorized the Interstate Commerce Commission to guarantee long-term loans for these purposes in a total amount up to $500 million. Potentially of greater importance is the provision of the Act instructing the Interstate Commerce Commission not to held up the rates of one type of carrier to protect the tariff of any other. This might enable the railroads to bid with greater success for freight that otherwise would go to the motor or water carriers. Many students of transportation agree that the railroads, in terms of fuel and manpower, are by far the most efficient mode of transportation, and that it is wasteful not to allow them to utilize their natural advantage in competing with other carriers.[26] Moreover, a strong railroad organization proved indispensable in World War II, and for strategic reasons also it must be maintained strong.[27] A motor expressway can handle only 4,000 people an hour, a railroad line, ten times that many. To provide protection against contingencies requiring mass mobilizations of people on short notice, the military has initiated a program of stockpiling railroad cars retired by the carriers.

The United States railway system is now virtually the only major railway system of the world that is not government-owned and operated. If we want to preserve it in private ownership, we can not allow it to remain "the outstanding unsubsidized 'sick man' of transportation."[28]

Motor Transportation. The huge inroads which motor transportation has made into the business of the railroads are due not only to the rate systems but also to the speed and flexibility characteristic of motor carriers, whose better and quicker service may fit into a special distribution or production scheme. Much of the motor carrier freight is of relatively high value, with the bulk commodities left to rails, pipelines, inland and coastal waterways. The public attaches so high a value to facilities that ease the utilization of automobiles that it will insist on a vigorous program of high-

[26] See Robert A. Nelson, "Administered Rates and Competition," New York Railroad Club, *Official Proceedings*, 1958, pp. 1–16; "Regulation of Rates of Common Carriers: Does It Need Revision?" Two Prize-Winning Papers by George W. Wilson and G. Lloyd Wilson (Washington, D.C.: Federation for Railway Progress, 1956); Dudley F. Pegrum, "The Special Problem of Inter-Agency Competition in Transport," *I.C.C. Practitioners' Journal*, December, 1956, pp. 307–14; Gilbert Burk, "The Great U.S. Freight Cartel," *Fortune*, January, 1957, pp. 102 ff.

[27] See James M. Symes, "The Next War: We Could Lose it on the Rails." *Railway Progress*, March, 1958, pp. 4 ff.; Robert W. Harbeson, "Transportation: Achilles Heel of National Security," *Political Science Quarterly*, Vol. LXXIV, No. 1 (March, 1959), pp. 1–20.

[28] *Federal Transportation Policy and Program, op. cit.*, p. 11. The situation abroad is surveyed in the *New York Times*, March 24, 1958.

way maintenance and development, regardless of its ill effects on the cities[29] and on the railroad business. Obviously the automobile and oil industries will give their wholehearted support to such a program.

All told, the federal, state, and local governments spend about $10 billion a year on highways of all sorts. Since 1916, highway construction and improvement has been promoted by federal grants-in-aid to the states. The current program, as outlined by the Federal-Aid Highway Act of 1956, aims at the construction of a 41,000-mile system of "interstate and defense" highways, to be paid 90 per cent by the federal government and 10 per cent by the states. A related program for the construction and improvement of lesser roads is financed in equal parts by the federal and state governments. Federal highway finance is removed from the regular budget. Instead, a Highway Trust Fund has been established, into which are paid the proceeds from federal excise taxes on gasoline, diesel fuels, trucks, buses, trailers, tires and inner tubes, and from a use tax on heavy vehicles. Grants-in-aid to the states are paid out of the trust fund. At times, however, when the latter was depleted, it has been replenished by the transfer of monies from the general fund. To the extent to which this takes place, there is continued subsidization of highway users.

Since the war, many states have also sponsored the construction of toll roads or turnpikes, of which there are 23, extending over nearly 3,000 miles. After a financially disappointing start, these roads have attracted increasing numbers of users, and their financial soundness is now believed to be assured. They have, however, remained a controversial matter. The advocates of toll roads point out that by creating toll road, or turnpike, authorities, the states can avoid the direct assumption of debt, which is limited in many state constitutions. Moreover, state funds for highways usually have to be disbursed in accordance with narrowly circumscribed formulas, which operate against the concentration of expenditure on a large project, such as those represented by the toll roads. Such concentration of expenditure might also be resented by many inhabitants of a state, for whom immediate highway needs are not adequately provided. Furthermore the toll roads are frequented by a large proportion of out-of-state users, and the levy of a toll makes these contribute to the cost of the highway. The opponents of toll roads reject most of these arguments. They point out that there is much intrastate use of the facilities and that their financing, while nominally independent, usually is backed by state credit.[30]

Air Transportation. Aviation provides transportation service of a unique character, which, in the form of passenger transportation over

[29] See Daniel P. Moynihan, "New Roads and Urban Chaos," *Reporter*, April 14, 1960, pp. 13–20.

[30] For a balanced discussion the student may consult Wilfred Owen and Charles L. Dearing, *Toll Roads and the Problem of Highway Modernization* (Washington, D.C.: Brookings Institution, 1951); "Toll Roads Turn the Corner," *Economist*, July 2, 1960, p. 39.

medium and long distances, is directly competitive with the railroads. Aviation is subsidized by the federal, state, and local governments in the from of airways, airports, and navigation facilities in amounts exceeding $500 million a year. There is a direct federal subsidy of over $50 million a year to feeder lines serving smaller communities.

In spite of heavy subsidization, the aviation industry is beset by financial difficulties resulting from the conversion to jet aircraft[31] and other factors. In 1960 a company, threatened by bankruptcy, merged with another, and a continuation of the merger movement may well be in store.

When the federal government assumed jurisdiction over air transport by passing the Civil Aeronautics Act of 1938, airlines then in operation were automatically authorized by the law to continue their service. This so-called "grandfather clause" is still in force, and it has had potent effects upon the route pattern that developed during the intervening period. The route pattern, in part, reflects the conditions prevailing during the 1930's, which may differ in substantial respects from present-day requirements.

Water Transportation. There has been a substantial revival of river transportation in recent years, but the case that can be made in support of water transportation and its public promotion is somewhat dubious, being mainly based on the future transportation requirements of the nation. It has been estimated in this connection that the country's total freight load will double between 1960 and 1980, and double again during the twenty years then following. The expansion of inland waterways and the construction of new ones is held to offer a solution to the problem of long-term transportation requirements.[32]

Water transportation is often considered cheap; but those who consider it thus tend to forget that water transportation is, in many instances, available only because the taxpayers carry the financial burden involved in maintaining and improving waterways—some $300 million a year. It is obvious that water transportation is cheap to the user, because, except for the St. Lawrence Seaway, no toll is levied for the use of a waterway under the control of the federal government. Other transportation agencies subsidize water transportation by having to pay for the cost of bridge construction providing navigational clearance. However, water transportation, while it may be cheap, is also slow; and because of seasonal and other natural disturbances, it is less reliable than other forms of transportation.

Federal appropriations for waterways are notorious for "log-rolling" tactics; for this reason, lump-sum appropriations have been found preferable to specific, "pork-barrel" legislation. The lump-sum appropriations

[31] See John L. Hess, "The Growing Pains of Jet Travel," *Reporter*, December 25, 1958, pp. 9–13.

[32] Statement by Senator Robert S. Kerr, Chairman of the Select Senate Committee on Water Resources, August 13, 1960. At the same day the committee released a comprehensive study, made by the Corps of Engineers, outlining long-term plans for water resource development projects.

are allocated to specific projects by the Chief of Engineers of the Army, the agency entrusted with the maintenance and development of waterways. This agency is presumably sufficiently removed from local pressure to submit each project to careful and unbiased analysis.[33] In order to minimize waste, such analysis is indispensable, because no general principle is at hand that would supply a basis for the decision as to whether or not water transportation projects as a class deserve public support.

A river development program of controversial character that was widely debated for many years is the St. Lawrence Seaway, which was completed in 1959 (see Fig. 47). A glance at the map of North America shows a far-

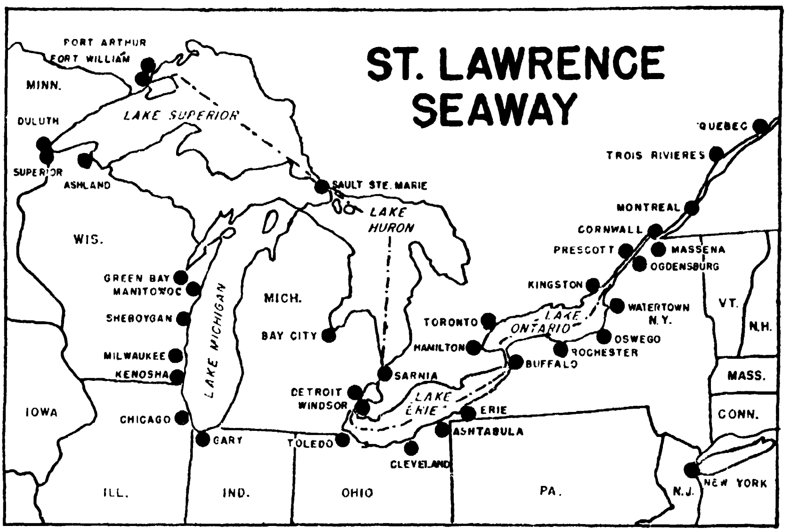

FIG. 47. The St. Lawrence Seaway is shown here, with ports indicated by dots. From "Department of Agriculture Appropriations for 1961," *Hearings before a Subcommittee of the House Appropriations Committee*, 86th Cong., 2nd sess., 1960, p. 326.

flung natural waterway extending from the Atlantic Ocean to the Great Lakes. Part of this waterway, known as the St. Lawrence River, forms the boundary line between the United States and Canada. While other sections of the seaway had been much improved in the course of the years, the International Rapids section, between Ogdensburg and St. Regis, New York, continued to be a bottleneck, providing only 14-foot navigation. The

[33] The measurement of the value of each project is a complex and highly technical matter. See, for example, Edward F. Renshaw, "The Measurement of the Benefits from Public Investment in Navigation Projects," *American Economic Review*, September, 1957; Peter O. Steiner, "Choosing Among Alternative Public Investments," *ibid.*, December, 1959, and the literature listed in the Bibliography, p. 454, below.

construction of the last link in the International Rapids section has opened up the Great Lakes and the Midwest to large, deep-draft vessels, adding, as it were, a fourth coast to the United States.[34]

The new waterway is likely to have adverse effects on the Eastern railroads and the regional interests attached to the great ports along the Eastern seaboard. These have indeed opposed the project for many years. The traffic lost by them will be the gain of the Great Lakes ports, Western railroads, and inland waterways west of Chicago. The extent of the shift will be conditioned by the toll charge for the use of the Seaway. The question of the toll was a hotly debated issue during the past few years, with Great Lakes carriers and Canadian interests pleading for no toll at all—as so far has been the rule on U.S. waterways—or a low one, and the Eastern interests insisting on a substantial charge, adequate to allow the amortization of the United States share in the construction costs of the canal, some $150 million. Toll charges actually levied are considered moderate by transportation specialists. To what extent they will attract traffic will depend also upon the expansion of port facilities along the Great Lakes, which has proceeded only haltingly. In any event, the completion of the Seaway induced the Eastern railroads to make substantial reductions of freight rates on shipments between the North Atlantic ports and those of the Great Lakes.

The very existence of the Seaway no doubt will stimulate demands for water transportation development in the Midwest, and there is already under consideration a project that would link the Great Lakes with the Ohio River.

THE TENNESSEE VALLEY AUTHORITY

Often it is difficult to decide whether or not a waterway project is economically sound or unsound, because the costs of developing and maintaining navigation cannot be isolated from the general expenses incurred by an over-all development scheme. Undertakings of this sort are referred to as multiple-purpose projects; they include river valley development projects which, apart from the promotion of navigation, provide flood control, produce hydroelectric power, and serve a number of additional minor purposes. The most outstanding of these projects is the Tennessee Valley

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[34] See Marvin J. Barloon, "Channel to the Heart of a Continent," *New York Times Magazine*, June 21, 1959, pp. 7 ff.; "Railroads and the Seaway," *Barron's*, March 23, 1959, pp. 11 ff.; Robert C. Haldeman, *Potential Effects of St. Lawrence Seaway on Costs of Transporting Grain*, U.S. Department of Agriculture, Marketing Research Report No. 319 (Washington, D.C.: U.S. Government Printing Office, 1959); Jerome D. Fellman and Associates, "The Seaway and Chicago: Growth Not Explosion," University of Illinois, *Current Economic Comment*, February, 1960, pp. 13–24; *Economist*, April 25, 1959, pp. 329 f.; May 2, 1959, pp. 427 f.; January 5, 1960, p. 112.

Authority, an enterprise noteworthy in many respects, which has been emulated and admired throughout the world.[35]

The Tennessee Valley Authority was established as a public corporation in 1933. Since then it has built over thirty large dams, created an inland waterway with more than 600 miles of eleven-foot navigation channel, provided over 12 million acre-feet of flood control storage—which has gone far in eliminating previous hazards of floods—and installed capacity for over 10 million kilowatt of electrical energy. It has also done outstanding work in such diverse fields as reforestation, malaria control, and fertilizer production, bringing immeasurable benefits to the region where it is located. One half of TVA's electric power goes to the Atomic Energy Commission; the other is distributed among some 5 million final consumers. Average rates per kilowatt-hour of residential service are less than half the national average. The average residential customer in the territory served by the TVA purchases power 100 per cent in excess of that bought by the average customer of the whole United States.

Allocation of Joint Costs. If the various services produced by multiple-purpose projects such as the TVA were sold in competitive markets, the allocation of joint costs incurred in producing the services would not present a special problem. In reality, however, some services, such as, for example, flood control benefits, are not marketable at all; while the markets in which others are sold are not competitive. Since the price charged for services of the latter type should presumably be related to cost, special efforts have been made to ascertain, for example, the cost of power produced by a multiple-purpose project such as the TVA.

The solution which was finally accepted is referred to as "alternative justifiable expenditure theory," also called "alternative cost avoidance theory." This theory is based on the assumption that river dams and other works constructed under the multiple-purpose program fulfill their functions more economically than if the objectives which they serve were sought independently. It operates with the help of the following procedure. Estimates of the hypothetical costs of single-purpose projects for flood control, navigation, and power production are prepared. From the hypothetical estimates the actual, directly allocable costs of the several projects are deducted. The "remaining alternative costs" then are converted into percentages of their total, indicating the ratios in which total costs are to be allocated among the three purposes. On the basis of this operation, and after some adjustments, 40 per cent of the costs were allocated to power; 30 per cent, to navigation; and 30 per cent, to flood control.

Yardstick Rates. The TVA made available low-priced power to the inhabitants of the region it was intended to serve and has promoted indus-

[35] See R. L. Duffus, "TVA's Challenge—After Twenty-five Years," *New York Times Magazine*, May 18, 1958, pp. 27 ff.; "Starving the TVA," *Economist*, June 2, 1956; "TVA Recharged," *ibid.*, August 15, 1959, p. 427.

trial expansion at a faster rate than that of the Southeast or of the nation as a whole. Its ability to sell such power goes a long way to demonstrate that the demand of domestic and commercial users for electric energy is much more elastic than was generally believed. When private utility concerns, operating in the same region or elsewhere, followed suit, their experience was similar; and they likewise expanded sales considerably. The public power project thus demonstrated the feasibility of promotional rates designed to stimulate consumption. In the light of this experience, it has become doubtful whether price discrimination, based on the assumption of a low elasticity of demand of domestic and commercial users, has as much to commend itself as was believed in the past.

Apart from the direct benefits which the TVA has conferred upon the inhabitants of the region, it supplied a reservoir of industrial power that proved invaluable during World War II as well as during the period of power shortage in the years that followed the conflict.

It was originally believed that the TVA could be useful in promoting still another objective of public power policy, namely, to serve as a yardstick with which to measure the prices charged by private companies. However, there is much doubt as to whether the rates levied by the TVA can actually accomplish this. They are calculated on the basis of a complex method of cost determination, which is not comparable, it is held, with that used by single-purpose, private concerns. Moreover the public project enjoys economies in interest payments, and the contributions which it makes to the states and municipalities in lieu of taxes may be less heavy than the tax burden placed on a comparable private organization.

Other River Valley Development Projects. Programs resembling the Tennessee project have been advocated for the development of the Missouri River and other river valleys. Such programs are of importance in the first line because of their impact on the regional economy. They are also useful as instruments of antidepression policy whose benefits are diffused over the whole country. They are less commendable during times of full employment.

FEDERAL POWER DEVELOPMENT

Since the early forties the generating capacity of the nation's electric power plants has approximately quadrupled, rising from 50 to over 200 million kilowatts. Further rapid expansion is anticipated. While the bulk of total capacity is in privately owned utilities, the public production of power has increased also. Before the late 1930's, this meant, in the main, establishments on the local or state level. But since then the capacity of federally owned power plants has first come to equal, and later to exceed, that of local and state establishments. Among the federal installations, there are those of the Tennessee Valley Authority as well as a number of other

projects of great importance mainly for the development of the West. Their capacity is about 15 per cent of the total.

One of the earliest of these installations, the Muscle Shoals project, initiated during World War I and completed in 1925, is now part of the TVA. The Boulder Canyon project in Arizona and Nevada was authorized in 1928 and has been in operation since 1936. It has a capacity of 1.3 million kilowatts. Another giant, the Grand Coulee Dam in the State of Washington, was begun in 1934 as a public works project during the depression. Completed in 1941, it is the world's largest hydroelectric installation, with a capacity close to 2 million kilowatts. Plans and programs as formulated during the early fifties envisaged an eventual expansion of federally owned generating capacity to 46 million kilowatts.

Initially, federal power production was a by-product of flood control, navigation, and reclamation projects. Gradually, however, the power aspects of federal projects have come to overshadow the others, and the projected expansion was not limited to hydroelectric power but included steam-generating plants that would be available to "firm up" existing hydroelectric capacity in times of low water conditions.

The advocates of the expansion of federal power claim that the large and growing power requirements of the country make federal activities in this field indispensable and that the multiple-purpose projects are of such nature that they cannot be developed by private concerns. They also insist that our priceless heritage of water resources should not be exploited for private gain and that federal installations make the power available to the consumers at lower prices than those charged by private agencies.

The opponents of federal expansion in this field insist that the need for federal projects could be relieved if private concerns were given more adequate opportunities to meet the country's power requirements. While they concede that there are multiple-purpose projects suitable only for public development, they are unwilling to grant the validity of the general proposition that there is a fundamental difference between water resources and others, say, agricultural and mineral ones, which are exploited by private agencies. They also point out that the lower price of federally produced power reflects the lower cost of capital available to public agencies as well as the absence, in their case, of the burden of the income tax. The taxpayer, it is held, subsidizes the purchaser of federally produced power. This last point is often rebutted with these arguments: If the taxpayers subsidize the construction of federal installations, they create assets owned by themselves, or by the nation, and the corresponding increase in the nation's assets has no counterpart when privately owned capacity is installed. Moreover, much of the recent expansion of private utilities was facilitated by accelerated amortization (see p. 513, below), resulting in what amounts to interest-free loans from the federal Treasury.

The opponents of federal expansion in this field also point out that the entry of private capital into suitable lines of hydroelectric power production should not be obstructed; that the government projects should be economical; and that private companies should be allowed to participate more freely in the operation of publicly constructed facilities and in the distribution of power generated by these. The law, as it stands, requires that federal power be sold ahead of others to the so-called "preferential" customers—states, counties, municipalities, and nonprofit co-operatives—but much of it is turned over to private utilities for distribution.

The change of the national administration in 1953 marked a retrenchment of federal activities in the field of power production. In a policy statement of the Department of the Interior, dated August 18, 1953, it was noted that "the primary responsibility for supplying power needs of an area rests with the people locally." The Department, the statement announced, "will not oppose the construction of facilities which local interests, either public or private, are willing and able to provide." Federal responsibility was recognized, however, for "multipurpose projects with hydroelectric developments which, because of size or complexity, are beyond the means of local, public or private enterprise"; but such responsibility was chiefly limited to the making of plans and recommendations, with the project to be undertaken by private utility companies.

REGULATION OF NATURAL GAS

It remains to discuss the regulation of natural gas, which has been an important issue in the general field of public utility regulation in recent years.[36] Natural gas is in large part a joint product of oil. Some twenty-five years ago it was considered of little value and much of it was burned as waste. In recent decades the consumption of natural gas has increased by leaps and bounds, and at the close of the 1950's it replaced coal as the second-largest source of energy used in the United States.

Some 50 per cent of the uncommitted reserves of natural gas are controlled by four large oil and gas companies. Some 3 per cent of the producers contribute over 90 per cent of the current supply of natural gas. Thus, the bulk of it is produced by the great oil companies in conjunction with their conventional operations. Subsequently it flows through pipe-

[36] See Richard Austin Smith, "The Unnatural Problems of Natural Gas," *Fortune*, September, 1959, pp. 120 ff.; James W. McKie, *The Regulation of Natural Gas* (Washington, D.C.: American Enterprise Association, 1957); Martin L. Lindahl, "Federal Regulation of Natural Gas Producers and Gatherers," *American Economic Review*, Vol. XLVI, No. 2 (May, 1956), pp. 532–44. On the supply situation and reserves, see Lyon F. Terry and John G. Winger, *Future Growth of the Natural Gas Industry* (New York: Chase Manhattan Bank, 1957).

lines—which have reached 600,000 miles—and is then sold to the local utility companies. Approximately one half of the natural gas finds a use in the vicinity of the place where it has been found—in the growing petrochemical industry of Texas, for example. The remainder is transported across state lines and sold in distant markets: the Midwest, Pennsylvania, New York, etc.

Some pipeline companies are active also in the producing end and transport their own gas. Others buy it from the producers—largely the great oil companies—which then are referred to as "independents." The natural gas industry is regulated by the Federal Power Commission in accordance with the Natural Gas Act of 1938, which is designed to protect the ultimate consumer of the product. To construct a pipeline, a company requires a certificate of public convenience and necessity. As the franchise vests it with monopoly power, the price which the pipeline company charges in interstate trade is regulated by the Federal Power Commission.[37] The price charged by the distributing utility company at the consumer end is subject to state regulation.[38]

The question at issue is the regulation at the wellhead of the price of gas sold by the so-called "independent" companies to the pipeline companies. In a famous decision the Supreme Court has held that the price for such sales is subject to regulation by the Federal Power Commission.[39] The Supreme Court has likewise held that the regulation by the Federal Power Commission may not be frustrated by state-fixed minimum wellhead prices—an alleged conservation measure—for natural gas sold in interstate commerce.[40]

There have been repeated attempts to amend the Natural Gas Act by exempting the so-called "independent" producers from regulation by the Federal Power Commission or by modifying the regulation, but so far these have failed to accomplish their objective. Twice, in 1950 and again in 1956, bills containing such provisions were vetoed by the respective Presidents. President Eisenhower's veto of the 1956 bill was motivated not by his disagreement with the substance of the bill but by his reluctance to approve a measure that had been promoted by "arrogant" and "highly ques-

[37] Regulation by the Commission does not constitute a full-fledged exemption from the antitrust laws. For example, the Federal Power Commission in 1959 gave approval to the absorption, by a major pipeline company of the Southwest, of the only other major pipeline company west of the Rockies, although the merger was contested by the Department of Justice as a violation of Section 7 of the Clayton Act. The case is now before the federal courts. See also above, p. 378.

[38] In accordance with the Hinshaw-Bricker Amendment of 1954 to the Natural Gas Act, which overrode a Supreme Court decision of 1950 assigning regulation at the consuming end to the Federal Power Commission.

[39] *Phillips Petroleum Company* v. *State of Wisconsin*, 347 U.S. 672 (1954).

[40] *Natural Gas Pipeline Company* v. *Panoma Corporation*, 349 U.S. 44 (1955).

tionable" activities of lobbyists—a bribe of $2,500 having been offered to a member of the Senate.[41]

The majority of the Federal Power Commission, as then constituted, favored the exemption of the independent producers, and it assumed its regulatory functions only with great reluctance and after much delay. The Commission was swamped with thousands of applications and rate schedules but for years it did little to facilitate the early processing of these cases.

Those who favor the exemption of the independent producers of natural gas from regulation insist that the production of natural gas is not a public-utility type of business.[42] The producers, they say, have no franchise, no right of eminent domain, and no assured rate of earnings. As neither the production of oil nor that of coal is considered a public-utility operation subject to regulation by the Federal Power Commission, the production of natural gas, a "luxury fuel," should not be singled out for regulation. The persistent rise in natural gas prices at the wellheads does not reflect lack of competition but results from the fact that the oil industry in the United States operates under conditions of increasing cost. Those in favor of the exemption point out further that the price structure of the natural-gas industry does not lend itself to utility-type regulation, which allows a price composed of the cost of production plus a fixed percentage. With nine out of ten explorations unsuccessful, great risks are involved in the production of oil and natural gas. Allocating in part the cost of the unsuccessful operations to a product subject to regulation would pose serious difficulties, as would the related problem—insolvable by the rules of logic—of allocating the joint cost of producing oil and gas. Those who support the exemption emphasize that only about 10 per cent of the consumer price of natural gas accrues to the producer; that the regulation of the consumer price would compound the discriminatory treatment accorded in the past to the economy of the South (where much of the natural gas is found); that such regulation would discourage the expansion of natural gas production and lead to higher product prices; and that the Southern producers would rather retain the product within the confines of their own region than to sell it in the interstate market at regulated prices.

Those who oppose the exemption of the independent producers from

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[41] An industry group, which was not linked with this incident, was later revealed to have spent $1,753,513 from October, 1954, to March, 1956, on a campaign designed to "inform the public." Over 90 per cent of this was contributed by 26 large oil and gas companies. These then tried to deduct the respective amounts as "educational contributions" from their taxable income, but this was disallowed by the Internal Revenue Service. The matter was the subject of an investigation by a Special Senate Committee. *New York Times*, June 17, 1957.

[42] For a discussion of the pros and cons see, for example, the *Hearings* before the Senate Committee on Interstate and Foreign Commerce on "Amendments to the Natural Gas Act," 84th Cong., 1st sess. (Washington, D.C.: U.S. Government Printing Office, 1955), pp. 10–28, 1113–56.

regulation by the Federal Power Commission want to protect the consumer against higher gas bills. They estimated in 1956 that the exemption would raise the cost of gas by $800 million a year, some $40 per average household using natural gas. In view of the expenses involved in discarding gas-burning facilities, the consumers could not respond to this increase in the price of gas by converting their heaters and other installations to coal or oil. The spokesmen of the consumers point out that regulation of the prices charged for natural gas by the local utilities to the consumers and of those charged by the pipeline companies to the local utilities is futile unless it is supplemented by the regulation of the price paid by the pipeline companies at the source of the product. Pipelines, they say, are no garden hoses that can be moved around at will. Instead, once they are constructed, they are immobile and have to obtain gas from the regional producers to stay in business. As their cost base is reduced every year by depreciation, they are compelled to expand their volume of business continuously to maintain their profits. The market for natural gas thus is a sellers' market, of which the great oil companies, having so successfully practiced a policy of "price stabilization" in the case of oil, will make the most. Unless there is regulation of the prices the pipeline companies have to pay, they are apt to bid them up to unconscionable heights.

In order to obtain long-term supply contracts, the pipeline companies have agreed in advance to escalator clauses that would raise (but not lower) the gas price in accordance with changes in the producers' fixed costs and their state taxes. They have also signed so-called "most-favored-nation" clauses, under which the producer could raise the price of gas to the level attained in deals with other pipeline companies.

It was pointed out further that higher gas prices resulting from exemption from regulation would discourage marginal and industrial users of gas. Because of the slack of household demand during the summer season, these users fulfill the important function of stabilizing the business of local utilities and pipeline companies. If the higher price would divert these users to other fuels, the resulting unfavorable effects on the cost of the local utilities and pipeline companies would be responsible for an increase in consumer prices of gas much in excess of the differential that would accrue to the producers in the absence of regulation.

The threat of regulation has by no means acted as a deterrent to the expansion of natural gas production nor has it caused an increase in the proportion of gas retained in the regions where it is produced. What these will retain is determined by other factors: the growth of population and of gas-using industries. As regards the administrative problem of having the Federal Power Commission handle the cases of some 6,000 producers, regulation, to be effective, need not cover the price schedules of all of them. Regulation could be limited to some 200 large concerns which contribute

over 90 per cent of the total supply of natural gas. If these are regulated, the prices of the small suppliers will follow in line.

SUMMARY

Water, gas, and electric works, and common carriers are businesses affected with a public interest. They often render better and lower-priced service if allowed to operate as monopolies. The importance of these enterprises, their monopolistic character, and the fact that many of them owe their existence to franchises or certificates of convenience issued by public authorities: all account for their regulation by the government.

Apart from the local and state agencies of control, various federal commissions are active in this field. These organizations primarily have the function of regulating the prices charged by the utilities and railroads to their customers. In doing this, they will endeavor to allow the concerns a fair return on the fair value of their property. The firms are permitted to formulate price policies that include a good deal of discrimination. Of late, financial policies of utilities and railroads other than those relating to prices have come to be more strictly supervised for the protection of users, investors, and the public at large.

The development of new forms of transportation, all of which are subsidized by public authorities—as were the railroads—and the revival of water transportation, which likewise is heavily subsidized, have brought into the open the problem of transport co-ordination, i.e., of a consistent system of public transportation policies.

Some of the more recent advances in the field of navigation have occurred in the form of multiple-purpose projects that render services consisting of navigation, flood control, electric energy, and other matters. The Tennessee Valley Authority is the principal example of such a multiple-purpose project. Problems arising from its operation include the allocation of joint costs among the various services and the proper determination of rates. There are plans for similar development projects of other river valleys. Since the thirties the TVA and other federal projects have produced an increasing amount of electric power. The question of whether, and at what pace, this policy should be continued has become an important political issue.

Another important issue in the field of utility regulation is the question whether the so-called "independent" producers of natural gas are under the jurisdiction of the Federal Power Commission. This question has been decided in the affirmative by the Supreme Court, but the Commission has done little to fulfill its responsibility, expecting Congress to exempt the producers from regulation.

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STUDY QUESTIONS

1. What is the nature of public utilities?
2. Why are public utilities and transportation enterprises subject to regulation?
3. Why have regulatory commissions been under attack in recent years?
4. What criticisms have been made of the Federal Communications Commission?
5. What is the substance of *Smyth* v. *Ames*?
6. What is the substance of the Hope Natural Gas decision of the Supreme Court?
7. What is meant by "overcapitalization"?
8. How are railroad freight rates determined?

9. Trace the recent development of mergers among railroads.
10. Trace recent regulatory developments in the field of railroad abandonment.
11. Which railroads are more favorably situated economically and which railroads less?
12. What kind of passenger has become the typical railroad passenger?
13. On what grounds do the railroads complain that other transportation enterprises receive public subsidies?
14. Is motor transportation publicly subsidized?
15. Can a case be made for the vigorous expansion of water transportation?
16. What was the issue in the controversy about rates charged by the St. Lawrence Seaway?
17. What are the arguments in favor of regulation of the prices charged by the independent producers of natural gas?
18. What are some of the accomplishments of the Tennessee Valley Authority?
19. What are the arguments of those who oppose federal water power development?
20. What has been the most important issue in the field of regulation in recent years?

Chapter 18 GOVERNMENT FINANCE

The finances of public authorities on the three levels of government are of great practical importance, because the amounts of money involved have increased enormously during the lifetime of this generation. Public expenditures affect the welfare of millions of people, and public revenues in the form of taxes now expose the incomes of practically all the people to a substantial drain.

Public finances will be surveyed first from a vantage point which allows the student to view the whole picture. This will be done by analyzing public budgets. In the section which then follows, there is a more detailed study of the various types of expenditures and revenues of the government. The chapter is concluded with a survey of the problems created by the growth of the public debt.

PUBLIC BUDGETS

Nature of Public Budgets. A budget is an account, made for a calendar or business year, of the proposed revenue and expenditure during such period. In democratic societies the budget, in its final form, is the result of legislative enactments. Protection of the citizen against arbitrary taxation exacted by the executive branch of government was indeed one of the principal issues which ushered in representative government in the Western World.

In the United States the federal budget, by far the largest of all public budgets, is prepared in the form of the so-called "executive budget" in the office of the President for the consideration of Congress. The agency entrusted with this preparatory budget is called Bureau of the Budget, a division of the Executive Office of the President. This Bureau holds

a division of the Executive Office of the President. This Bureau holds hearings and sponsors investigations into the anticipated needs of the various government departments. Its power over the purse strings is a great one, and its employees can promote certain programs by allowing them a larger estimate while pruning others. The results of its works are assembled and submitted by the President to the Congress early in January each year. This gives Congress ample time to enact appropriation and revenue bills for the next fiscal year, which starts on July 1.

The various appropriation bills are first considered by subcommittees of the congressional appropriations committees which have jurisdiction over the function or agency which the appropriation is to serve. While revenue bills generally are considered by only one committee of the House and of the Senate, the distribution of the appropriation work among a large number of different subcommittees tends to make the exact determination of the sum of total expenditures a matter of chance. Since the mid-forties attempts have been made to have the budget-making work of Congress integrated by a joint budget committee that would set a ceiling on total expenditure for each budget year, but these attempts have not been successful. The appropriations committees tend to hold on to their powers over spending in the face of a substantial erosion of these powers. This has come about, first, as a result of "short cuts" used by regular legislative committees, which, when authorizing expenditures, sometimes immediately provide for their financing by authorizing the use of public debt receipts, the making of contracts, or other means of payment. The second factor which has gone far in removing congressional control over annual expenditures arises from the fact that many appropriations are made for projects whose completion requires more than a single year. This has brought carry-overs in the form of unspent appropriations available for future years whose size is estimated to equal the amount of the annual federal budget. As it is the President who has the authority to determine how much of the carry-over may be spent in a given year, it is he who in the last analysis determines the total amount of annual federal expenditures.

There are various ways to manipulate the size of the budget. One of these is the substitution of long-term lease contracts for the construction of buildings and other facilities. Instead of the purchase price or the construction cost, the annual budget then only shows the relatively moderate amount of the rental. However, if the rentals are cumulated over the years, the savings may be more apparent than real. Another device is the handling of loans made by government corporations, the Export-Import Bank or the Federal National Mortgage Association, for example. If the loans are included among the government expenditure, as they are since 1947, total expenditure will be larger than it would be if the loans were considered as assets, to be turned into expenditures only if sold at a loss.

The British make a sharp distinction between the "budget above the line" and the "budget below the line." The former refers to the operating expenses of the government, and these are to be balanced by revenue. The budget below the line includes the capital expenditures of the government, and these are on principle financed by borrowing. Basic to the distinction is the idea that the capital expenditures—for river developments, urban renewal projects, and many other purposes—are spent on the acquisition of assets that might or might not earn returns from which to service the debt. The proposal has at times been made to introduce a similar division into the federal budget, but thus far it has not been adopted.

Another important distinction, that between the regular, or administrative budget and the "consolidating" or cash budget, will be reviewed presently on page 461.

Growth of Public Budgets. During the past century there has occurred an unprecedented increase in public expenditures and revenues. This has been due to inflation and the increase in population, urbanization, and industrialization, as well as to the assumption, by the government, of many new functions, and to wars and depressions. The cost of government on the various levels has often been found to increase faster than population. This is so because public problems become more complex as the community or commonwealth grows and because new problems arise which did not exist when population was small. Moreover the assumption of new functions by the government manifests itself primarily in the form of social services which require disbursements. An early instance of this was public education, followed later by disbursements for the unemployed, the aged, the sick, and for other purposes. Wars have at all times taxed the financial resources of governments. As wars have become mechanized, draining the total resources of industrial economies, wartime expenditures have risen at a steep rate.

The size of a large part of public budgets is in effect beyond the control of either Congress or the Executive. An example is the interest on public debts: obligations have been incurred in the past on which the government cannot renege. Moreover, there are many programs and policies responsible for expenses the actual amount of which depends upon the number of eligibles and applicants. Expenditures for veterans, social services, or the farm program are a case in point. Finally, while in a formal sense there is discretion regarding expenditures for such purposes as foreign aid or defense, the exigencies of the time may be such as to effectively limit the discretion of the budget-making authorities and make all but mandatory a certain amount of spending.

In connection with public expenditures, cynics will refer to Parkinson's "First Law"—work expands so as to fill the time available for its completion—which was later supplemented by his "Second Law": expenditure

rises to meet income.[1] It is true, of course, that there is a lot of water in public budgets, but nobody knows the secret of how this is to be let out, or to change the metaphor, how to eliminate the fat without cutting into the muscle.[2] Indeed, many thoughtful persons feel concern about public budgets in quite a different way. They consider them not too large but too small in the light of our huge wealth and income and relative to our private spending (see Fig. 48). They want our military strength to be second to

DEFENSE AND NONDEFENSE GOVERNMENT EXPENDITURES IN PER CENT OF GROSS NATIONAL PRODUCT

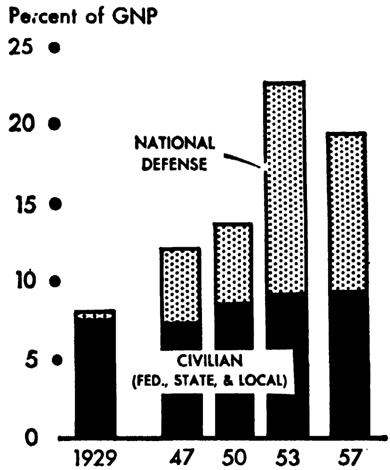

FIG. 48. The expanded role of government relates mainly to national defense. Expenditures for civilian purposes have not increased substantially faster than the gross national product. From U.S. Department of Commerce, *U.S. Income and Output*, 1958, p. 4.

none, and they insist on the need for larger public expenditures for education, health, housing, urban renewal, and other public purposes. Moreover, if our economic growth is properly accelerated, these observers see no need for substantial changes in the tax laws—apart from closing obvious loopholes—since rising incomes spell tax revenues that rise at a faster rate.[3]

However this controversy may be settled, the past growth of public

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[1] The First Law was enunciated in *Economist*, November 19, 1955, and later reprinted in C. Northcote Parkinson, *Parkinson's Law and Other Studies in Administration* (Boston: Houghton, Mifflin Co., 1957). For the Second Law see the same author's *The Law and the Profits* (Boston: Houghton, Mifflin Co., 1960).

[2] See Edwin L. Dale, Jr., *Conservatives in Power: A Study in Frustration* (New York: Doubleday & Co., 1960), pp. 61–78, for a review of the Eisenhower administration's efforts at reducing spending.

[3] See John Kenneth Galbraith, *The Affluent Society* (Boston: Houghton, Mifflin Co., 1958); Leon H. Keyserling, "The Case for a Big Budget," *New York Times Magazine*, February 3, 1957, pp. 10 ff.

budgets is impressive, especially if attention is concentrated on public expenditures. Owing to the increase in borrowing, mainly during the war and mainly on the federal level, public expenditures have risen considerably faster than public revenues. Table 27 shows all public expenditures, by federal, state, and local authorities, in per cent of personal income. While before the Great Depression public expenditures fluctuated in the neighborhood of 10 per cent of personal income, they rose close to 25 per cent during the thirties and reached over 60 per cent at the peak of World War II. Since then they have fallen, but the defense expenditures which reflect current international unrest keep them above the level prevailing during the thirties.

TABLE 27

GOVERNMENT EXPENDITURES IN PERCENTAGE OF PERSONAL INCOME, UNITED STATES, 1929–59*

1929	12	1940	23	1950	27
1930	15	1941	30	1951	31
1931	12	1942	52	1952	35
1932	22	1943	63	1953	35
1933	23	1944	62	1954	33
1934	24	1945	54	1955	32
1935	22	1946	26	1965	31
1936	22	1947	22	1957	31
1937	20	1948	25	1958	28
1938	24	1949	29	1959	29
1939	24				

* *Survey of Current Business*, National Income Supplement, July 1947, pp. 20–23; July, 1948, pp. 16, 18; and *passim*.

The Federal Budget. The increase in public budgets on all levels of government reflects principally the growth of the federal budget. Federal revenues have risen from $6 million in 1789 to $500 million in 1900, $5 billion in 1937, $45 billion in 1945, and $79 billion in 1960. Federal expenditures likewise rose from 6 million in 1789 to $500 million in 1900. In 1937 they were $8 billion, and in 1945 they reached $99 billion. In 1960 they still stood at $78 billion. In the past, federal deficits were unusual; and moderate surpluses were considered normal. Beginning during the thirties, deficits ranging from $1 billion to $56 billion came to be the rule. This continued for seventeen years until the fiscal year of 1947, when a surplus of close to $1 billion was earned. In the fiscal year 1948 the surplus rose to $8 billion. Only once before—in 1927—had there been a surplus in excess of $1 billion. The fiscal year of 1950 brought a surplus of over $3 billion. Since then, deficits became again the rule. From 1951 to 1960 there were deficits in seven and surpluses in three years (see Fig. 49).

All the foregoing calculations are in terms of the so-called "administrative budget"; that is, one which shows revenues and expenditures rather

than cash flows of funds to and from the Treasury. Unlike the "cash budget," the administrative budget, for example, includes accrued or deferred government payments to the public, such as interest on savings bonds whose redemption value has increased. The administrative budget also includes interest on government securities held by government trust funds, while it excludes cash contributions by, and payments to, such trust funds. Thereby are excluded from the administrative budget the operations of such trust funds as the old age and survivors, unemployment, and highway trust funds. The transactions of these trust funds are substantial, and the cash budget is now much larger than the administrative budget. For the fiscal year 1961, for example, the estimates for revenues and expenditures in the administrative budget are $84 billion and $80 billion, respectively, whereas in the cash budget they amount to $102 and $96 billion, respectively. From the point of view of fiscal policy it is of course the cash budget and not the administrative one which is of significance.

Receipts and Expenditures of the Federal Government

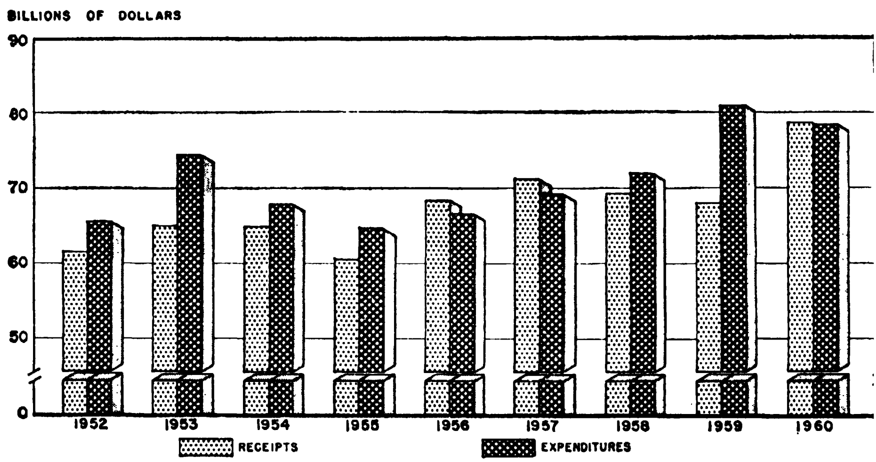

FIG. 49. In three years shown here, federal receipts exceeded expenditures. In the other years, expenditures exceeded receipts. From *Statistical Abstract of the United States*, 1960, p. 365.

While the administrative budget may show a surplus in a given year, the cash budget may incur a deficit, and vice versa. In the 1950's, the cash budget showed a deficit in six years, a surplus in three years, and in one year revenues and expenditures were about the same.

State Budgets. While the combined state budgets are considerably smaller than the federal budget, they have in recent years increased at a faster rate than the latter, doubling during the 1950's and exceeding $30 billion in 1960. In some states, constitutional provisions operate against the assumption of debts and thus make it unlawful for legislatures to incur ex-

penses in excess of current revenues. However, rising expenditures in the face of relatively stable tax yields have made the financial position of a number of states a precarious one. At times, the politically conditioned inability of the state of Michigan to meet current obligations when due has made the headlines. The total amount of outstanding state debts was three times at the end of the 1950's what it had been at their beginning.

Local Budgets. Local budgets, that is, those of counties, cities, towns, townships, school districts, and special districts have risen at about the same rate in recent years as the state budgets, and they add up to approximately the same amount as those of the states, with the cities supplying some 50 per cent of it. The budget of the city of New York is larger than that of any state or other political subdivision; being in the neighborhood of $2 billion, it is generally the second-largest public budget in the country, outranked only by that of the federal government. The financial position of many local governments is under a similar strain as that of the states, and they are constantly looking for new sources of revenue. The total of their outstanding debts rose from two to three times during the 1950's.

Federal, State, and Local Budgets Compared. In view of the stringency of the financial resources of the state and local governments, these are loath to assume new functions as they can fulfill the existing ones only with difficulty. In the absence of a thoroughgoing reform of state and local finances—which is not in sight—it is thus only the federal government, with its incomparably greater financial strength, that can undertake or finance new programs and policies that run into money. Whenever new programs or policies are under consideration, the suggestion that they be assigned to the state and local governments rather than to the federal government serves as a cloak for turning down the proposed programs or policies. The same is true of proposals to assign federal functions to the lower governments.

This has not always been the case. Until the Great Depression with its attending increase in federal activities, local budgets absorbed some 50 per cent of all public budgets, compared with some 20 per cent now. The remaining 50 per cent was distributed among the states and the federal government, with the latter's budget about twice as large as that of the states. The year 1928 marked a turning point. Federal expenditures rose from 26 per cent of all public expenditures in 1928 to 44 per cent in 1938 and reached 92 per cent during the war in 1944. Since then they have fallen, to 70 per cent in 1954 and to 57 per cent in 1960.

The rise in federal finances demonstrates the national character of many problems with which modern economic policy must cope. The depression was nation-wide in its incidence. Economic programs were formulated to handle conditions and situations which extend over the boundaries of states and localities. World War II again taxed the resources of the whole nation. But, as noted before, it is not only the national character of economic prob-

lems that has been instrumental in promoting the growth of federal finance; also important are certain features of the state and local governments which limit their spending power. Public spending requires taxation or borrowing. But the most productive sources of revenue are reserved for the federal government, including those taxes which are most progressive and thus do not discourage the rate of spending as much as state or local taxes would do. Moreover, as has been seen, there are definitive limits, legal and economical, to the extent to which governments of the lower order can rely upon borrowing. Benefits from spending tend to be diffused over a region that extends beyond the boundaries of states and localities. A policy of borrowing and spending would place the burden of the debt squarely on the shoulders of the inhabitants of the state or locality, while incomes would be generated that accrue to a much wider group.

There is much need for the co-ordination of the financial policies of government on the three levels. This relates, for example, to multiple taxation; that is, the taxation of the same transaction or condition by several states. For example, a corporation which does business in more than one state has to pay business taxes in each of them. The bases on which these taxes are levied in the various states may well overlap; and if the luck of the corporation is an especially poor one, the sum of the bases may exceed its entire net income or its capital stock. Similarly, motor vehicles doing business in more than one state are subject to a variety of license fees and taxes levied on the basis of ton-miles of travel within the states.

Just as co-ordination is required to avoid an excess of multiple taxation, so it is needed for the elimination of interstate trade barriers which restrain the flow of commerce among the states. Such barriers are often established in the form of taxes or licenses which, in effect, discriminate against out-of-state producers. Similarly undesirable results are brought about by the sanitary and traffic regulations of some states. There are restrictions on the length, weight, and load of various vehicles, especially of trucks, which are checked at "ports of entry." Sometimes such regulations, in effect, prevent the admission of certain types of trucks and of the goods which they carry. Sanitary regulations may be so cumbersome on foodstuffs produced outside the state borders that it does not pay to import them. Barriers of this sort had multiplied during the depression of the thirties. Although a relaxation of the restrictions was noticeable during the forties, not a few of them have survived to this day.

Fiscal Policy. The attainment of co-ordination among federal, state, and local financial policies is a foremost task of fiscal policy. Fiscal policy in general can be defined as an economic policy that considers public finances in their relationship to national income, employment, and the price level. Emphasis on this relationship is of comparatively recent origin. It has come to the fore in conjunction with the growth of public budgets, a development that has turned them into important determinants of incomes

and prices. In the past the interest of economists had been concentrated on the revenue aspects of taxation. Later on, taxes were recognized as instruments of control that might promote or retard specific economic activities. Still later, and only very recently, the study of the specific effects of taxation was supplemented by that of the over-all consequences of public expenditures. This was in no small measure the result of the increasing concern caused by the violence of economic fluctuations. Taxes, so it came to be believed, should be reduced during depression in order not to add to the curtailment of private expenditures. Contrariwise, private expenditures might then well be supplemented by more liberal spending on the part of the government. Budgetary deficits thus came to be an accepted policy on the federal level during the thirties.

However, during periods of boom and prosperity, policy must change. Drastic taxation then is needed to absorb purchasing power which, in the face of fully employed resources, could be used only for bidding up prices. Public spending has to be curtailed as much as is feasible. Thrift in government becomes the watchword of the hour.

Fiscal policy thus requires co-ordination and flexibility. Without co-ordination, there is danger that the various governmental authorities' operations will work at cross-purposes and thereby defeat the ends of over-all fiscal policy. Flexibility is needed in order to adapt fiscal policy to the requirements called for by the changing level of economic activity. If the need for flexibility is recognized, the question arises whether principal emphasis should be placed on variations in taxes or in public expenditures. There are difficulties inherent in both methods. Changes in tax policy are not quickly accomplished. Some expenditures are in the nature of fixed charges, and others may be determined by requirements considered more important than sound economic policies.

Fiscal policy finally requires changing emphasis on different types of taxation, depending on the general economic situation. In times of depression, it is advisable to rely more heavily on taxes that discourage the rate of saving rather than that of consumption. This is so because depressions, as has been seen, are characterized by deficient expenditures for investment. If savings are not put into investments, they can be taxed relatively more heavily without adverse consequences on the general level of expenditures, incomes, and employment. Emphasis on taxes that would cut into the consumption of the taxpayers would be misplaced under such circumstances, because this would further reduce incomes and employment. In periods of prosperity, on the other hand, less restraint commends itself with respect to taxes that reduce the rate of consumption. On the contrary, such taxation, by encroaching upon consumer spending, exerts a wholesome influence on the level of prices. Since resources are fully employed during such periods, the public cannot, by means of price offers, stimulate increased production.

PUBLIC EXPENDITURES

Federal Expenditures. The composition of federal expenditures bears out the statement that many disbursements are determined by considerations whose importance goes beyond the aims of economic policy. Close to four fifths of total expenditures reflect past and present international instability. Requirements for national defense call for almost three fifths of total disbursements; benefits for veterans amount to 7 per cent. Interest on the public debt, incurred primarily during World War II, but rising on account of refinancing at higher rates, requires an outlay of 12 per cent. As Table 28 indicates, the disbursements for domestic public functions, such as housing, health, and education, are dwarfed by these amounts.

TABLE 28

PER CENT DISTRIBUTION OF FEDERAL EXPENDITURES, YEAR ENDING JUNE 30, 1961*

Major national security	56
Interest	12
Agriculture	7
Veterans services and benefits	7
Labor and welfare	6
International affairs and finance	3
National resources not agricultural	3
Commerce and housing	3
General government	3
Total	100

* *The Budget of the United States Government for the Fiscal Year Ending June 30, 1961* (Washington, D.C.: U.S. Government Printing Office, 1960).

State Expenditures. The expenditures of the states reflect in their composition the various functions of state government. Owing to the diversity of conditions within a state, a large part of state expenditure, approximating one third of the total, is devoted to aid for lower governmental units. Another large portion is paid into trust funds serving special purposes, especially in the field of social insurance. Next in size are disbursements for the construction and maintenance of highways. Expenditures for public welfare, debt service, health, and hospitals follow in importance.

Local Expenditures. The largest part of local expenditures is for schools, followed by debt service, highways, public welfare, and a large variety of public functions served by the local governments.[4] The pressure for increasing expenditures on the state and local level, which has been so noticeable in recent years, arises, first of all, from inflation, and, second, from the

[4] See U.S. Bureau of the Census, *Governmental Finances in 1958* (Washington, D.C., 1959).

vigorous growth of population that has occurred since the early 1940's (see Fig. 50). Once the newcomers have reached the productive age, they can

PUBLIC EMPLOYMENT

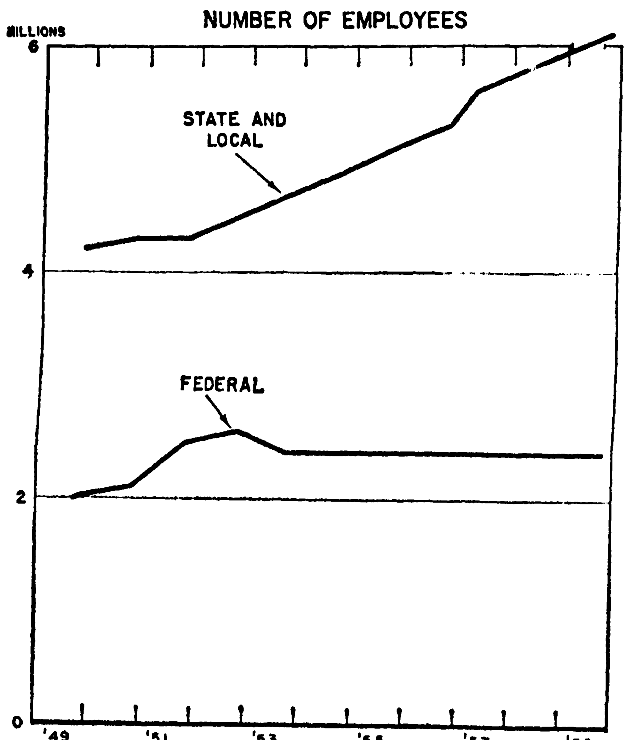

FIG. 50. While federal employment has been relatively stable, the number of employees of the state and local governments has been rising sharply in recent years. From *Statistical Abstract of the United States*, 1960, p. 402.

contribute to the cost of government, but in the meantime they need schools and teachers. Another important cause of financial trouble has been the movement to the suburbs.[5] Moreover, the residents whose average income is invariably higher than ten or twenty years ago, expect better services from the local governments, and these run into money.

PUBLIC REVENUES

Types and Significance of Public Revenues. The principal types of public revenues are taxes, receipts from other governments, earnings of public enterprises, fines, and fees. Fines and fees, together with licenses, special

[5] See above, p. 321.

assessments, and other payments that are small in the aggregate are often collectively referred to as administrative revenues.

The definition of the various types of administrative revenues is no easy matter. Fines are levied by public authorities for violations of the law. Fees are payments for special services. License charges are closely related to fees; they are paid in return for the grant of a permit by public authorities. Special assessments are levied by local governments on properties which derive special benefits from public improvements.

Compared with taxes the significance of all other types of public revenues is small, especially in the case of the federal government. Administrative revenues, earnings of public enterprises, and aids from other governments assume an importance that gradually increases with the lower levels of government.

The Federal Tax System. During most of the nineteenth century, receipts from customs duties represented the bulk of federal tax revenues; but already during its second half, other taxes, collectively called "internal revenue," began to come to the fore. They then, in the main, were composed of various excise taxes on distilled spirits, fermented liquor, and tobacco. During the twentieth century, customs receipts, though stable in terms of dollars, declined rapidly in importance. After the failure of earlier attempts at income taxation, Congress in 1909 proposed a Constitutional Amendment which was adopted in 1913 and became Article XVI of the Constitution. The amendment was needed because the Supreme Court, in 1895, had held a federal income tax unconstitutional because of the absence of apportionment among the several states in accordance with their population.[6] Such apportionment the Constitution required for "direct" taxes. The amendment provides that "Congress shall have the power to lay and collect taxes on incomes, from whatever sources derived, without apportionment among the several states, and without regard to any census or enumeration." This opened the way for the taxation of incomes; and since then the income tax has assumed an ever-increasing importance, overshadowing all other sources of federal tax revenue. Excise taxes continue to be levied, and since the enactment of the Social Security Act in 1935 they have been supplemented by taxes on payrolls. The composition of federal tax revenue throughout the more recent decades is shown in Table 29.

The Tax Systems of the States. While the income tax is the backbone of the federal tax system, that of the states is characterized by the preponderance of taxes on sales and gross receipts. Next in importance are proceeds from payroll taxes levied for purposes of unemployment compensation. However, these receipts, unlike ordinary tax revenue, are not available for general governmental purposes and are placed in a trust fund. Income taxes play a relatively minor role; together with property taxes and receipts

[6] *Pollock* v. *Farmers' Loan and Trust Company*, 157 U.S. 429 (1895); 158 U.S. 601 (1895).

TABLE 29

PERCENTAGE DISTRIBUTION OF FEDERAL RECEIPTS, BY SOURCES OF REVENUE, BY DECADES, 1901–50, AND ANNUALLY, 1951–59*

Fiscal Years	Total Budget Receipts	Revenue Source								
		Individual Income Tax	Corporation Income and Excess Profits Taxes	Excise Taxes			Customs	Estate and Gift Taxes	Employment Taxes (Gross)	Miscellaneous Receipts
				Total	Liquor	Tobacco				
1901–10	100	....	0.4	42.8	32.9	8.6	48.0	0.3	....	8.5
1911–20	100	47.9		27.4	13.0	5.8	12.3	1.1	....	11.4
1921–30	100	51.8		18.1	0.7	8.4	12.6	2.5	....	15.1
1931–40	100	18.4	21.1	35.1	8.7	11.9	8.5	5.5	6.2	5.2
1941–50	100	40.4	29.1	15.7	5.4	3.0	1.1	1.8	5.2	6.7
1951	100	43.8	27.0	16.3	4.8	2.6	1.2	1.4	7.4	3.1
1952	100	43.9	31.6	13.1	3.7	2.3	0.8	1.2	6.7	2.7
1953	100	45.1	29.7	13.7	3.8	2.3	0.8	1.2	6.9	2.6
1954	100	44.3	29.4	13.7	3.8	2.2	0.8	1.3	7.4	3.2
1955	100	45.6	26.3	13.3	3.9	2.3	0.9	1.3	9.0	3.7
1956	100	44.8	27.0	12.7	3.7	2.0	0.9	1.5	9.3	3.8
1957	100	46.6	25.7	12.7	3.6	2.0	0.9	1.6	9.1	3.3
1958	100	45.9	24.5	12.9	3.5	2.1	1.0	1.7	10.3	3.8
1959	100	48.5	21.6	12.8	3.6	2.2	1.1	1.6	10.6	3.8

Treasury Department, Tax Analysis Staff.

* Because of rounding, individual items may not add to totals.

for licenses and privileges they absorb the bulk of the remainder.[7] The percentage distribution of state tax revenues is given in Table 30.

TABLE 30

PERCENTAGE DISTRIBUTION OF STATE TAX REVENUES, 1958*

Sales and gross receipts:	
General sales, use, and gross receipts	23
Motor vehicle fuels	20
Alcoholic beverages	4
Other	12
Motor vehicle licenses	9
Corporation income	7
Individual income	10
Property	4
Poll taxes and miscellaneous	11
Total	100

* U.S. Bureau of the Census, *Governmental Finances in 1958* (Washington, D.C., 1959), p. 15.

The search for new revenue has been responsible for the spread of the sales tax among the states, for taxes on gasoline and on cigarettes, and for increasing rates of taxation in these fields. As of the summer of 1960, there were sales taxes in some 34 states, the rates ranging from 2 to 4 per cent. Gasoline taxes were from 5 to 7 cents per gallon, and cigarette taxes from 2 to 8 cents per package.

Some thirty-three states have introduced the income tax, and the spread of this tax has created a number of problems. Most states tax the income of residents as well as that part of the income of nonresidents which is received from sources within the state. In matters of deduction and in other ways, nonresidents often are not treated as well as residents. Usually, the double taxation of the same income by two states is avoided by reciprocity agreements under which the tax paid by a nonresident may be deducted from the tax payable to the state of his residence, but if no income tax is levied by the latter, no such relief is offered. This is the situation, for example, for residents of New Jersey or Connecticut who work in New York: New York State has an income tax, but New Jersey and Connecticut do not.

There are large variations in the burden of the state taxes on the residents of the various states. In 1959, the per capita state taxes amounted to $92 for the whole country, but the range extended from $150 in Delaware and $149 in the state of Washington to $56 in Nebraska.

The tax revenue of the states is supplemented by grants from the federal

[7] These receipts are properly considered taxes and not administrative revenues, because they exceed by far the cost of the service rendered. Most important among them are motor vehicle and and liquor licenses.

government for a number of purposes, including highway construction and social security programs. Approximately 12 cents of $1 of federal tax revenue is so spent. As of 1959, no state receives in the form of grants a larger amount than it contributes to federal taxes, although in the case of a few states the excess of federal taxes is small. The state of California ranks first in terms of grants and second in terms of contributions to federal taxes; the state of New York contributes more in taxes to the federal government than any other state, and it holds second rank in terms of grants received from the federal government. In per capita terms, grants vary from $226 for Alaska to $29 for New Jersey.

A matter of controversy among the various states relates to proposals to have the federal government relinquish certain taxes which then would be taken over by the states and used to finance functions now aided by federal grants. Such a change would affect favorably some states and unfavorably others. For example, if the federal government would cede the federal gasoline tax to the states, as has often been proposed, some Western states with large territories and small population would suffer a loss in revenue, the amount of federal aid to highway construction exceeding what they can hope to raise through gasoline taxes. Thus, these states will resist such a change, while other states, being in a different position, would favor it.

The states hope to take over the federal tax on local telephone service, which yields more than $700 million a year, but so far the federal government has held on to it.

Local Tax Revenue. Local tax revenue is primarily derived from property taxes. These contribute the great bulk of all local tax revenues. Additional amounts are yielded from taxes on specific businesses and from sales taxes. A few localities have introduced taxes on income and payrolls in search of new sources of revenue.

The rise of slum areas has depressed property values in many cities. To maintain the yield of the property tax, tax rates have been raised. In the city of Boston, for example, the assessed valuation has been declining throughout the second part of the 1950's, the total falling to the level of the mid-forties. At the same time, the rate has risen to $100 per $1,000 of assessed valuation. Similar examples can be given of other cities. As property tax yields have failed to rise commensurately with inflation, federal and state aid to the cities has been increasing faster than their tax revenue. Taxes now produce about 60 per cent of revenues.

The financial position of the cities is aggravated by the maldistribution of political power in many state legislatures, which have overrepresentation of the rural and underrepresentation of the urban interests. In Florida, for example, ten counties with 78 per cent of the population which pays 80 per cent of the state taxes are represented only with 25 per cent in the legisla-

ture. Again, the example could be multiplied with illustrations from many other states. As a result, the state legislatures tend to pay more attention to rural than to urban problems, and when they allocate grants to the local governments, they will tend to favor the rural areas.

Nature of Taxes. In the foregoing discussion a number of references have been made to various taxes. It is now necessary to define taxes and to point out several criteria with whose help they may be classified. Taxes can be defined as compulsory payments to public authorities which levy them for public purposes. Unlike fees or service charges, taxes are not paid in consideration of specific services rendered to the payer. Their payment is a duty imposed on the citizen, sanctioned by the law of the land which sets up a machinery for the enforcement of the tax system and imposes penalties on those who refuse to abide by its rules.

As repeatedly noted, taxes are levied for revenue and control. Control may mean regulation of specific activities or of the level of over-all economic aggregates. Traditionally the revenue aspect of taxation has been in the foreground of attention, and indeed, in the absence of borrowing or the issue of money by the government, taxes are needed to yield revenue required for the fulfillment of government functions. In the great majority of all cases, it is impossible to finance these by exacting a multitude of payments from the citizens in return for the specific benefits they receive. Sometimes the benefits are diffused in such a way that the identification of special beneficiaries is not feasible. In other instances, justice requires that benefits are provided regardless of payment; and in still other cases, benefits are granted with the view of having them financed by groups other than those composed of the beneficiaries. While in a given instance these considerations may overlap, defense activities of the government are primarily an example of the first type; police protection, of the second; and poor relief, of the third.

Types of Taxes. There are several criteria at hand with whose help taxes may be classified. Such criteria include the object of a tax, the type of government that levies it, the specific or general character of the purpose for which it is levied, its shiftability and incidence, and the proportionality or progressiveness of the tax rate.

1. All taxes have as an object transactions or conditions that are connected with income, property, the enjoyment of special rights, and the activities of specific business enterprises.

Income. The receipt of income, gross or net, may be an object of taxation, as it is in the case of the individual and corporate income tax. Specific types of income, wages, for example, are the object of other taxes, such as the payroll taxes levied under the provisions of the Social Security Act.

Property. The mere ownership of property may be the object of the tax, as in the case of property taxes. Sometimes the receipt or transfer of

property is the object of a tax. Of this, gift, inheritance, and estate taxes are examples. Or the object of taxation is the importation, sale, purchase, or use of commodities. These taxes are called duties, excises, sales, and use taxes.

Enjoyment of Special Rights. The exercise of special rights, such as the use of a motor vehicle or the sale of liquor, may become the object of taxation. The resulting taxes are called license taxes; they differ from ordinary license charges since these generally do not exceed the cost of the governmental service represented by the grant of the license. The enjoyment of special rights is often taxed if the exercise of the right increases the financial burden carried by the community. The use of motor vehicles requires outlay for highways; the sale of liquor eventually increases the work load of the police force.

Activities of Specific Business Enterprises. The banks, railroads, public utilities, and insurance companies are exposed to a variety of special levies.

2. As has been seen, taxes are imposed by the federal, state, and local governments. A very few taxes are levied exclusively by one government; many are collected on all three levels, although their significance varies with each level. Income taxes are the most important source of federal tax revenue, but income taxes are also levied by the states and a few localities. Sales taxes, in the form of excises or general sales taxes, are likewise levied on all three levels, but nowhere else are they as important as in the state budgets. Property taxes produce revenues for the states and localities, but their significance is greater for the localities.

Because of constitutional limitations the various governments are restrained in the levy of certain taxes. Direct federal taxes must be apportioned among the several states in proportion to their respective populations; but this rule, as noted, is modified in favor of the federal income tax. Indirect federal taxes must be uniform throughout the United States. Exports must not be taxed. One government cannot tax the property or instrumentalities of another, although it is now recognized that it can tax the salaries of the employees of other governments.[8]

State constitutions often contain limits that restrain the taxing power of the state. They frequently fix the maximum rates that may be levied on property. The right to tax is usually exclusively reserved for the state legislature; when it is exercised by the local governments, their power is a delegated one.

3. While most taxes are designed for general governmental purposes, some taxes are intended to produce revenues that are earmarked for specific purposes. Examples are the various motor vehicle fuel and license taxes; their proceeds are usually designed for the construction and maintenance of highways. Another example of special-purpose taxes are the payroll taxes

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[8] *Graves* v. *O'Keefe*, 306 U.S. 466 (1939).

levied under the Social Security Act; they are intended to finance specific social security programs.

4. Traditionally the shiftability of a tax is used as criterion for classifying it as a direct or an indirect one. A direct tax cannot be shifted by the payer to others; or, at least, such shifting is not intended by those who levy the tax. An indirect tax is usually levied with the intention of having it passed on by the payer to other persons. Income taxes are the principal examples of direct taxes; sales taxes and customs duties are indirect taxes. The distinction, useful as it may be for some purposes, must not be employed as a basis of far-reaching decisions. Often the shiftability of a tax is uncertain or can only be determined on the basis of unduly restrictive assumptions.

The location of the final burden of a tax is called its incidence. Thus the incidence of a direct tax is on the payer, while that of an indirect tax is borne by another person.

Taxes on commodities and, in a sense, also taxes on property may be considered indirect, because sales taxes can often be passed on—in part or in full—to the consumer and property taxes to a tenant in the form of higher rents. Presumably, future property taxes are also shifted to the present owner when he sells the property; the price he receives is reduced by the capitalized value of future tax liabilities. It is, however, easier to shift a tax that applies only to a specific kind of property than a general property tax. The principal direct taxes are those on incomes, but the whole matter of shifting and incidence can be analyzed only on a level of abstraction too high to warrant its inclusion in this book.

5. The tax rate, that is, the measure that is applied to the tax base, may be proportional or progressive. The rate may be expressed as a percentage of a sum of money. If the rate goes up as the value of the tax base—income, property, etc.—increases, the tax is progressive. If it remains constant regardless of a change in the value of the base, it is proportional. Nominally, taxes rarely are regressive in the sense that rates would fall as the base widens. But regression, progression, or proportionality may be related not only to the tax base but also to other relevant magnitudes. A sales tax, for example, is generally a tax proportional to the value of the purchase. But it will tend to be regressive in terms of the taxpayers' incomes, absorbing a larger proportion from the poor and a smaller from the rich.

The criteria of progressiveness, regressiveness, or proportionality may be applied to one tax in isolation, a number of taxes, or to the tax system as a whole. In this sense the progressiveness of the tax system or its absence is related most generally to the incomes of the taxpayers. A tax system may be progressive within certain income ranges of the taxpayers and regressive within others. In the United States the tax system has gradually become more progressive (or less regressive) as the importance of the federal income tax and of federal taxation in general rose relative to the sales

and property taxes of the states and localities. The federal tax system is more progressive than those of the lower governments.[9]

The distinction between progressive and other taxes is important because progressive taxes cut more deeply into monies that otherwise would be saved, while regressive or proportional taxes will be paid to a larger extent out of funds that in the absence of the tax would be spent for consumer goods. This difference must be considered in the formulation of fiscal policy. Apart from this, progressive taxation is taxation that tends to impede further concentration of wealth and income and thus, in a sense, promotes economic equality. For this reason, progressive taxation is considered just.

Justice in Taxation. People will agree that taxes ought to be just, but there is much dissension about the proper criterion of justice in taxation. In the past, it was often believed that taxes should be levied in proportion to the benefits received by the taxpayer from the government. Benefits, however, are of such nature that they are rarely measurable and, as noted, tend to be diffused among the citizenry at large. Public revenues levied in accordance with the principle of benefits received are more properly called "fees," not taxes. As a principle of taxation, "benefits received" cannot be regarded as operational.

The more modern view is perhaps best characterized by Emerson's saying that "the weight of taxes must be calculated not by what is taken, but by what is left." This statement implies that principal emphasis should be placed on the taxpayer's ability to pay, determined by his wealth, or, because wealth may not be liquid, by his income or spending. It is the principle of ability to pay that has been most important in promoting progressive income taxation in modern societies. Taxpaying ability is said to rise faster than income; a person earning an income twice as large as that of another is able to pay more than twice the other's tax. He is able to do this because consumption expenditure absorbs a smaller proportion of income as incomes rise. This is true, however, only in the mass and on the average. Specific individuals may well behave in a different manner.

A universal principle on which to base progressive income taxation might, so it seems at first glance, be found in the notion that taxation should involve a minimum of sacrifice. Thus it might be argued that the sacrifice imposed on the rich by the levy of taxes is out of proportion to the sacrifice to which such payment exposes the poor. Therefore, if sacrifices are to be minimized, it is the rich on whom the tax collector should call first, turning to the poor only to the extent to which the resources of the rich fail to suffice. But the minimum-sacrifice principle postulates the possibility of interpersonal measurements of utility and disutility. Some will insist that the admission of this possibility is as unscientific as the judgment stating

[9] See, however, Robert J. Lampman, "How Progressive is Our Tax System?" *Commentary*, September, 1959, pp. 223–30.

that Emily is three and a half times as beautiful as Helen, or a complaint that my shoe pinches two and three fourths times as badly as somebody else's.[10] Moreover the minimum-sacrifice principle is rooted in the erroneous belief in a much more rapidly falling marginal utility of money than the principle of diminishing marginal utility makes plausible. The latter, indeed, implies that the last dollar of an income of $10,000 carries less utility than the last dollar of $1,000; but from this it does not follow that the last $10 of a $10,000 income provide less satisfaction than the last dollar from a $1,000 income.[11] This, however, would have to be assumed if the principle of diminishing marginal utility of money were to be made the foundation of progressive income taxation. Still another objection to the minimum-sacrifice principle can be derived from the fact that this argument, if followed to its logical conclusion, would result in full equalization of incomes.

Such a drastic result, indeed, would be considered undesirable by many who would favor greater equality. But those who welcome a certain leveling process will endorse progressive taxation, regardless of the minimum-sacrifice principle. Others will insist that progressive taxation is especially appropriate in wealthy societies which can afford to stimulate the rate of consumption by taxing and by spending; still others point out the special usefulness of progressive taxation during periods of depression: when the level of investment falls, there is little need for encouraging the rate of saving at the cost of the rate of consumption.

In various ways, economic science offers a foundation, albeit a fragile one, for progressive taxation. In the last analysis the question involves value judgments of various types—whether the leveling of disposable incomes is a good thing and how far it should go. Economic science also cannot indicate exactly which progression is just and which one is unjust. These are questions which have to be settled in the arena of politics.

Those who consider progressive taxation as just generally will take cognizance of important modifications of the principle. During boom times, it may be desirable to reduce the rate of consumer spending. Moreover, at all times there is danger that steeply progressive income taxes may paralyze incentives and thus restrain production. If the tax on an addition to income absorbs a higher percentage of it than the tax on former increments, people may shy from the additional effort required for earning the extra income.

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[10] The matter is more fully discussed in Lionel Robbins, *An Eassay on the Nature and Significance of Economic Science* (2nd ed.; London: Macmillan & Co., Ltd., 1937), chap. vi; Abba P. Lerner, *The Economics of Control* (New York: Macmillan Co., 1944), chap. iii. See also, for a discussion of the economic bases of progressive taxation, Walter J. Blum and Harry Kalven, Jr., *The Uneasy Case for Progressive Taxation* (Chicago: University of Chicago Press, 1953). The doctrinal history of the various arguments is ably traced by F. Shebab, *Progressive Taxation* (Oxford: Clarendon Press, 1953).

[11] A. C. Pigou, *A Study in Public Finance* (London: Macmillan & Co., Ltd., 1928), p. 106.

If tax rates are very high, investors may weary of risky ventures: the potential profits after taxes are liable to be too small to compensate for the risks of losses. These considerations are qualified to some extent by the possibility of transforming profits into "capital gains," which are treated by the income tax law less harshly than other forms of income.

THE INCOME TAX

As noted, income taxes are levied on the federal, state, and, to a very minor extent, also on the local level. State income taxes supply a much lesser share of state tax revenues than does the federal income tax on the federal level. The states sometimes allow liberal exemptions and levy only relatively low rates on small incomes. The highest rate, 11.6 per cent on income in excess of $8,000, is found in Oregon, followed by North Dakota, where the tax on income over $15,000 is 11 per cent. In most of the other states, the rates are far lower. Many students of finance consider higher states income taxes desirable as an alternative to heavy sales taxes. This, however, is a matter that remains to be settled in the future. The discussion which follows is devoted to the federal income tax.

The Income Tax Base. The object of the federal income tax is the income of individuals and corporations. What is—or better—what is not considered income? Mainly gifts, inheritances, life insurance benefits, and earnings from tax-exempt securities are not regarded as income. From this list, it can be concluded that the tax collector considers as income the capital gains—which to the economist are not income but the result of transfers of existing assets. This indeed he does, but certain types of capital gains are privileged by lower tax rates.

After the gross receipts of the taxpayer have been reduced by the items not considered income, the difference, called gross income, is further curtailed by so-called "deductions." Most broadly defined, these include the business and professional expenses that were incurred in the acquisition of the gross income. On the grounds of logic the living expenses of the taxpayer and his family might be considered such expense, but the law does not permit their deduction. Indeed, some authorities favor the replacement of the income tax by a tax on consumption expenditure,[12] a proposal which might merit special attention during periods of boom and prosperity.[13]

Other deductions are allowed for charitable and similar purposes. The

[12] This proposal was made, for example, by Irving Fisher, *Constructive Income Taxation* (New York: Harper & Bros., 1942). In earlier times, its advantages had been pointed out by John Stuart Mill, Alfred Marshall, A. C. Pigou, and others. The whole matter is judiciously investigated by William Vickrey, *Agenda for Progressive Taxation* (New York: Ronald Press, 1947), chap. xii.

[13] At such times, it may be commendable to encourage saving by granting a rebate of the income tax on that part of the income which is saved.

amount deducted for this may be as high as 30 per cent of gross income. While this provision encourages private generosity, it does so more vigorously with respect to the receivers of high incomes than to those of smaller means. In the face of progressive tax rates the donation on the part of a wealthy taxpayer leaves him financially only moderately worse off than if he had refrained from it. His donation is subsidized by the government to a greater extent than is that of a poorer taxpayer and, to the extent of the subsidy, is contributed by society at large. As will be noted the treatment of capital gains is such that a wealthy taxpayer may actually improve his financial position by making charitable contributions.

The difference between gross income and deductions is called "net income." To serve as tax base the net income is further reduced by so-called "exemptions." In the past, there used to be a large personal exemption for the taxpayer and smaller ones for his dependents. The income tax law of 1913, for example, exempted single people with incomes under $3,000 and married men with incomes under $4,000. The number of income taxpayers then was rather small, and the bulk of the tax revenue originated from incomes over $5,000. With the passage of time, this has been greatly changed. Still, before 1940 the exemption for a single person was $1,000 and for married people, $2,500. But eventually the high exemptions were replaced by a flat $600 per taxpayer and each dependent, as shown in Table 31. This has added many millions of people to the number of income taxpayers. While eight million returns were filed in 1939, they exceeded fifty million in 1945 and sixty million in 1960.

While the taxpayer's exemption was gradually lowered, that for a dependent, small though it is, was gradually increased. Now both exemptions are set at $600. Whether the present arrangement can be considered satisfactory will depend upon the social and economic function that is assigned to exemptions. A widely held view regards as their purpose the exclusion from income tax liability of such an amount of income as is required to cover a minimum of essential living cost. Actually, however, the exemptions for people without dependents—$600 per person—do not suffice for this at all. The exemptions approximate requirements as the number of dependents increases, because living expenses rise less than proportionately with the size of the family; but flat exemptions increase proportionately. The present arrangement thus discriminates in favor of large families; but as the cost of living has risen while exemptions were held down, the family must indeed by very large whose exemptions come close to its expenses at a level sufficient for the maintenance of health and decency. There are many who argue in favor of increased exemptions. This would again reduce the number of taxpayers and cause exemptions to approximate more closely the expenses of living.

Family Income. Husband and wife may file joint returns and divide

their combined incomes equally in computing their income tax. Thereby they can reduce their taxes through the double use of the lower rates in the graduated tax rate schedule.

TABLE 31

INCOME TAX EXEMPTIONS, 1913–60*

Income Year	Exemptions: Single	Exemptions: Married	Exemptions: Dependent
Mar. 1, 1913–15	$3,000	$4,000	....
1916	3,000	4,000	....
1917	1,000	2,000	$200
1918	1,000	2,000	200
1919–20	1,000	2,000	200
1921	1,000	2,500	400
1922	1,000	2,500	400
1923	1,000	2,500	400
1924	1,000	2,500	400
1925–28	1,500	3,500	400
1929	1,500	3,500	400
1930–31	1,500	3,500	400
1932–35	1,000	2,500	400
1936–39	1,000	2,500	400
1940	800	2,000	400
1941	750	1,500	400
1942–43	500	1,200	350
1944–45		500 per capita	
1946–47		500 per capita	
1948–49		600 per capita	
1950		600 per capita	
1951		600 per capita	
1952–53		600 per capita	
1954–60		600 per capita	

* "The Internal Revenue Code of 1954," *Hearings before the Committee on Finance, U.S. Senate* (*83rd Cong., 2nd sess.*), *on H.R. 8300*, (Washington, D.C.: U.S. Government Printing Office, 1954), Part I, p. 108.

Such splitting of incomes had been for long the practice in the so-called "community-property" states of the South and West, where the wife has an interest in half the husband's income and vice versa. Taxpayers in the higher brackets who lived in these states thus derived advantages from which the residents of other states were excluded. Eventually more and more states changed their legislation to make it conform in the relevant respect to that of the community-property states. The federal legislator in the end was placed in a position where there were only two alternatives: to outlaw the practice throughout the United States or to make it universal. The Revenue Act of 1948 selected the second alternative. This has been the most far-reaching instance of tax relief granted since the war, but its justification is dubious and its repeal is recommended by many students of public finance.

Capital Gains and Losses. As noted, capital gains are considered income for income tax purposes. Such gains arise from the ownership of productive assets (securities, real estate, etc.) which appreciate in value. But only gains that have been realized through the sale of assets are taxable, not paper gains that result merely from appreciation of inventory carried but not sold. Capital losses can be deducted from capital gains and, within limits, also from other income.

The federal legislator bestows a substantial privilege on those who earn capital gains. Long-term capital gains which result from holding assets over a period in excess of six months are not taxable in full. Only one half of them is taxable as income. Alternatively, the maximum effective rate on long-term gains is 25 per cent. These matters were noted already on page 338, where references can be found to the treatment of capital losses.

The taxation of capital gains is avoided, at least in part, when the asset is passed on to another person in the form of a bequest or gift. In the case of an asset acquired by the heir the gain that accrued while the former owner was alive is never taxed; the gain on which the heir may have to pay income taxes is measured by the difference between the value of the asset at the time of death and at time of sale. This makes people inclined to hold on to appreciated assets and to pass them on to their heirs, rather than to realize the gains and invest the proceeds in new ventures.

In the case of gifts the donor is not liable to income tax on the gain resulting from an appreciation of the asset before it was donated. Unlike the beneficiary of a bequest, the donee must pay tax on a gain measured by the difference between the cost of the asset incurred by the donor and its value at the time of sale. But as the donee's income will often be taxed at a rate lower than that applied to the income of the donor, tax savings can be made by donating appreciated assets instead of cash. Indeed, there is an extreme case where the taxpayer is better off if he gives away an asset that has appreciated in value than if he were to realize the gain through sale and pay the tax on it.[14]

Is the privileged treatment of capital gains equitable? Some students of finance are inclined to the view that the privilege may be necessary to maintain an adequate flow of equity capital into new and growing enterprises. Otherwise the chances of these in the face of large, well-established companies might be dangerously curtailed. It is thus possible that the privilege acts as a device preventing further concentration of economic power.

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[14] The discussion in the preceding paragraphs is based on Vickrey, *op. cit.*, pp. 139 f. From this source the following illustration has been culled: A wealthy taxpayer has purchased stock for $1,000 which is now worth $7,000. If he realizes the gain through sale, he pays a tax of 25 per cent on $6,000, which leaves net proceeds after tax of $5,500. But if he donates the stock to a charity, he may deduct $7,000 from his other income. If he is wealthy enough to pay a top-bracket rate of 80 per cent, his taxes are reduced by $5,600, and on balance he is $100 better off by giving the asset away than by selling it.

Nevertheless, two of the three authors of a study of the matter have expressed themselves in favor of heavier taxation of capital gains for reason of tax equity.[15]

The Income Tax Rate. Net income is taxed at rates which are applied to successive brackets of net income minus exemptions, and which rise with increasing brackets. Rates range from 20 per cent on the first $2,000 of income to 91 per cent on income in excess of $200,000. The maximum effective rate which the tax may absorb of the entire income is 87 per cent.

TABLE 32

RANGE OF INCOME TAX RATES, 1913–60*

Income Year	*Range of Rates (Per Cent)*
Mar. 1, 1913–15	1–7
1916	2–15
1917	2–67
1918	6–77
1919–20	4–73
1921	4–73
1922	4–58
1923	3–43.5
1924	2–46
1925–28	1.5–25
1929	1.5–24
1930–31	1.5–25
1932–35	4–63
1936–39	4–79
1940	4–79
1941	10–81
1942–43	19–88
1944–45	23–94
1946–47	19–86.45
1948–49	16.6–82.1275
1950	17.4–84.357
1951	20.4–91
1952–53	22.2–92
1954–60	20–91

* See source given in Table 31.

As Table 32 indicates, rates have been gradually raised since the enactment of the income tax. In 1913 the maximum tax rate was 7 per cent. Under the influence of World War I, it was raised eleven times within five years. By 1929 it was down to 24 per cent. Since then it was raised step by step to 92 per cent in 1952 and has declined only moderately since then. The sharp rise in rates has added to the progressiveness of the tax and contributed to offsetting the regressive features represented by lowered exemptions. Compared with the situation before World War II the present high

[15] J. Keith Butters, Lawrence E. Thompson, and Lynn L. Bollinger, *Effects of Taxation; Investments by Individuals* (Boston; Harvard Business School, 1953), p. 68.

rates about cut into half the value to a wealthy taxpayer of an extra dollar of earnings. However, as the proportion of income derived from capital gains increases with the income bracket, the privileged treatment of capital gains causes tax rates to be less burdensome on wealth than it may seem at first glance.

TABLE 33

EFFECTIVE RATES OF INDIVIDUAL INCOME TAX, IN PERCENTAGE OF NET INCOME, FOR SELECTED INCOME GROUPS, 1913–58*

Income Year	Married Person, 2 Dependents, with Net Income—									
	$600	$1,000	$2,000	$3,000	$5,000	$8,000	$10,000	$25,000	$100,000	$500,000
1913–15					0.2	0.5	0.6	1.0	2.5	5.0
1916					0.4	1.0	1.2	1.9	3.9	8.6
1917				0.4	1.3	2.7	3.4	7.1	16.2	38.5
1918				1.2	3.1	6.0	7.8	14.7	35.0	64.6
1919–20				0.8	2.1	4.2	5.6	11.4	31.2	60.6
1921					1.4	3.8	5.3	11.3	31.1	60.6
1922					1.4	3.5	4.6	10.0	30.1	52.1
1923					1.0	2.6	3.4	7.5	22.6	39.1
1924					0.5	1.0	1.4	6.1	22.5	39.9
1925–27					0.2	0.5	0.8	4.5	16.0	23.1
1928, 1930–31					0.2	0.5	0.8	4.0	15.7	23.1
1929					0.1	0.2	0.4	3.4	14.8	22.2
1932–33					1.4	3.0	4.2	9.8	30.0	52.7
1934–35					1.0	2.3	3.4	9.3	30.2	52.7
1936–39					1.0	2.3	3.4	9.3	32.0	60.7
1940					1.5	3.1	4.4	14.3	42.9	65.9
1941				1.9	5.4	9.0	11.2	25.9	52.2	68.9
1942			0.7	6.4	11.8	16.5	19.1	35.3	63.5	82.7
1943	0.2	1.4	2.9	8.9	14.6	19.4	22.1	38.3	67.8	88.0
1944–45	0.5	1.5	2.3	9.2	15.1	19.8	22.5	38.8	68.6	88.6
1946–47				6.3	11.8	16.2	18.6	34.1	62.3	81.3
1948–49				3.3	8.6	12.2	13.6	21.9	45.6	71.7
1950				3.5	9.0	12.7	14.2	22.7	47.2	73.9
1951				4.1	10.6	14.7	16.2	25.6	52.6	80.7
1952–53				4.4	11.5	16.0	17.7	28.0	56.0	82.2
1954–58				4.0	10.4	14.4	15.9	25.1	51.9	80.5

* *Statistical Abstract of the United States*, *1953*, p. 351; *1959*, p. 373.

To visualize the increasing tax burden on different income groups, we may inspect Table 33, which shows for different years the amounts of income tax, in percentage of net income, which fall due on a married person with two dependents. These percentages are known as effective tax rates. Again, however, hypothetical calculations such as these do not reveal the importance of the privileged treatment of capital gains. They show, for example, an effective rate of 80 per cent on an income of $500,000. This is so because only ordinary tax rates are considered in the table. The effective rate of taxation would indeed be 80 per cent on the very unusual $500,000 income that does not contain any capital gains. But if effective

rates were calculated on income inclusive of net capital gains, they probably would show no progression beyond a rate of 50 per cent.[16]

The effective rates, high as they are, are not unique in the world; nor are they the highest. In Britain, for example, effective income tax rates absorb a larger proportion of incomes, the standard rate being one of 7s.9d in the £, or 38¾ per cent. When the income of a British couple reaches the equivalent of about $25,000, the tax collector will take half of it. Income in excess of the equivalent of $42,000 is taxed at a rate of 88¾ per cent. However, the English do not consider capital gains as taxable income and have no intention of modifying their tax system in this respect.

As per capita incomes in the United States are the highest in the world, high rates of taxation may be said to reflect the principle of progressiveness: in the light of this principle, other countries, with lower incomes, could be expected to have lower rates of taxation. However, in terms of revenue our high rates are not overly productive. If the progression would stop at 50 per cent instead of at 91 per cent, the Treasury's loss would be about $1 billion out of total personal income tax revenues of $40 billion in 1960. If a flat rate of 20 per cent were paid, the income tax would still yield more than five sixths of this sum.

High income taxation has, of course, diminished the capacity of the upper-income groups to accumulate savings; but there is evidence that "their remaining capacity is still very large—much larger than is popularly supposed."[17] It seems that many individuals whose incomes rise key their living standards to disposable income after taxes and continue to save in the face of higher income tax rates. Moreover, there are many ways to accumulate assets without exposing oneself to the full brunt of individual income tax rates—by earning, as we have seen, long-term capital gains rather than other forms of fully taxable income; by not realizing capital gains; by investing in income tax-free bonds of state and local governments; by having income offset by depletion charges in excess of the cost of the property that is being depleted (a privilege extended to investors in oil and mining); by investing savings through insurance companies; by splitting the family income with the help of trusts, gifts, and family partnerships; by claiming large personal deductions and business expenses which in part represent consumer expenditure.[18]

Recent investigations also indicate that high rates of personal income taxation have little adverse effects on the effort of highly paid corporate executives, although fear is expressed in some quarters that they may deter newcomers from assuming large responsibilities. But how well-founded can such fear be, if, as is the case, corporate executives receive salaries after taxes that are higher than could be earned in any other employment, so

[16] *Ibid.*, pp. 85 ff.
[17] *Ibid.*, pp. 29, 229.
[18] *Ibid.*, pp. 81 ff.

that in this respect there are no rival employments that might attract prospective corporate managers? However, it has been reported that high rates of taxation are responsible for delayed retirement of some corporation executives; that they limit the mobility of such personnel by detracting from the net financial rewards incidental to changes in jobs; and that, especially in the case of owner-managed concerns, they restrain the volume of business an owner may wish to pursue.[19]

Rising rates of federal income taxation have been the motive behind the proposal to enact a constitutional amendment that would place a ceiling of 25 per cent of the effective top rates of federal income, estate, and gift taxes. This proposal must not be confused with another idea, that taxation in normal times should not exceed 25 per cent of the national income lest it be inflationary or depress production. Whatever the merits of this idea[20] the former proposal has been widely criticized as a "millionaires' amendment" that would benefit less than 1 per cent of the country's individual-income taxpayers, with the largest benefits falling on the top brackets. If the proposal were carried into practice the consequences would indeed be highly dangerous. The rigidity of the proposed arrangement would seriously impair federal fiscal policy, and the federal government would be compelled to rely more heavily upon regressive sales taxes or deficit financing; or it would have to relinquish public functions whose fulfillment the taxpayers demand.[21] When the Gallup Poll in 1957 put the question to a nation-wide sample of the population whether they would favor or oppose a constitutional ceiling of 25 to 35 per cent on income tax rates, 68 per cent of those polled opposed the proposal.[22]

The Corporate Income Tax. The income tax levied on corporations consists of a normal tax of 30 per cent—scheduled for a reduction to 25 per cent in the future—and a surtax of 22 per cent on income in excess of $25,000.

The corporate income tax is said to entail double taxation in that the dividend income of stockholders is taxed twice: first as corporate and then as personal income. Not all corporate income is, of course, distributed in the form of dividends; indeed, since 1941, dividends have only in seven

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[19] Thomas H. Sanders, *Effects of Taxation on Executives* (Boston: Harvard Business School, Division of Research, 1951).

[20] It was developed by Colin Clark, "Public Finance and the Value of Money," *Economic Journal*, Vol. V (December, 1945), pp. 371-89. For a critical review, see Joseph A. Pechman and Thomas Mayer, "Mr. Colin Clark on the Limits of Taxation," *Review of Economics and Statistics*, Vol. XXXIV, No. 3 (August, 1952), pp. 232-42. For the past few years, total United States tax revenues—all levels of government—have been in the neighborhood of 25 per cent of the gross national product, substantially less than in a number of countries in Western Europe with high rates of growth.

[21] See "Constitutional Limitations on Federal Income, Estate, and Gift Tax Rates," Joint Committee on the Economic Report and Select House Committee on Small Business (82d Cong., 2d sess.) (Washington, D.C.: U.S. Government Printing Office, 1952).

[22] *Washington Post*, July 14, 1957.

years amounted to a larger amount of money than undistributed profits. Moreover, in the case of small and medium-sized concerns, investors tend to draw their business profits in the form of salaries and to this extent reduce the base of the corporate income tax. If then the corporate income tax falls more heavily on large corporations which are not managed by their owners, an element of progressiveness is introduced that may well be considered desirable.

Stock ownership, as has been seen,[23] is highly concentrated. While there are widows and orphans among those who receive dividends, the bulk of these accrues to a very small sector of all income recipients. If it is desired to eliminate the double taxation of corporate income that is paid out in the form of dividends, a proper procedure would be the taxation of all corporate profits, whether retained or paid out, at rates similar to those applying to other forms of income under the personal income tax, and the exemption of dividend income from the personal income tax. If technical difficulties should stand in the way of this procedure, an alternative method, applying the same principle, would exempt dividends from the corporate income tax, while taxing the retained corporate income at rates equivalent to those levied on the dividend income of the average shareholder.

The double taxation of dividend income is eliminated to some extent under a provision of the 1954 income tax law. This provision exempts the first $50 of dividends from the personal income tax and allows the taxpayer to subtract from his income tax an amount equal to 4 per cent of additional dividend income.

Like the individual income tax the corporate tax is levied on net income. This implies that current losses may be deducted from current gains to determine taxable income. Moreover, business losses that occur in a given year may be deducted from gains made during the preceding three or following five years; that is, they may be "carried back" or "forward" during the indicated periods. The carry-forward privilege is of special importance for newly established concerns which are, during the initial period, liable to suffer losses. These should be interpreted as costs incurred in earning future income. Such enterprises derive little benefit from the carry-back provisions. These are of help, however, to businesses with fluctuating income and may make available liquid funds to a business firm experiencing economic reverses. As has been noted, the carry-forward provisions are important also for the reason that they make a business carrying losses a desirable candidate for a merger with a money-making concern, which thereby can reduce its income tax liability.

Another important and highly controversial provision is that relating to the depreciation of assets whose useful life extends beyond a single business year. The provisions regarding depreciation exert a powerful influence upon a firm's tax bill because if the depreciation allowance is large, current

[23] See p. 353.

tax liabilities are correspondingly lower, and if the depreciation allowance is small, current tax liabilities are correspondingly higher. At times the government has permitted accelerated depreciation, mainly as an inducement to investment. Under accelerated depreciation, present tax liabilities are reduced. Whether the future ones will be higher will depend upon future earnings and upon future tax rates. If neither decline, accelerated depreciation constitutes in effect an interest-free loan from the Treasury. If they do decline, accelerated depreciation assumes the character of a subsidy. As an inducement to renew the stock of capital used in the economy and promote a higher rate of economic growth, it has been proposed to liberalize the depreciation provisions of the tax law, with resulting higher corporate earnings. Such a liberalization, it is held, is especially desirable in times of rising prices when the cumulated depreciation allowances, being calculated, as they are, on the basis of historical cost, do not suffice to purchase a replacement after the useful life of the asset has expired.[24]

Excess-Profits Taxes. In wartime, there usually is imposed an excess-profits tax on corporations, with normal profits defined in terms of average annual earnings during a period of the past. During the Korean War, United States corporations were taxed at a rate of 82 per cent on their excess profits. Such taxes penalize corporations which are in stages of rapid growth. They encourage wasteful expenditures because the principal effect of these is felt by the tax collector rather than by the corporation.

PROPERTY, SALES, AND DEATH TAXES

The Property Tax. The property tax, the mainstay of local finances, is levied on real property, personal property, or both. But as personal property does not lend itself easily to taxation, principal emphasis is placed on land and buildings. The value of these is determined by local assessors, and to their valuation the prevailing tax rate is applied. Often an intervening step is taken, aiming at equalization of assessments. This is usually done by agencies of the state or of the county, which will apply uniform standards of valuation and insist on the elimination of the more glaring defects of the original appraisal. The property taxes of the states, which have much declined in importance, follow approximately the same pattern.

Criticism of the property tax is universal. Many claim that it is unjust to single out real property for taxation. Even if other forms of property are included in the base of the tax, the taxation of intangibles, which represent so large a proportion of wealth in modern societies, can be avoided and evaded by means not available to the owner of real property. Moreover, ownership of such property is not always a symptom of ability to pay. The

[24] For a discussion of this highly technical matter, see Tax Institute, *Depreciation and Taxes* (Princeton, N.J., 1959); John Ryan, *Current Depreciation Allowances* (New York; Fordham University Press, 1959).

ability-to-pay principle is further disregarded because of the prevailing tendency of underassessing high-value properties and overassessing small properties of low value, a tendency that has been found to exist wherever the matter was investigated. Thereby the property tax, while nominally levied at a flat rate, assumes regressive characteristics. Property taxes add to the cost of housing. It is also true that in some states the property is assessed and taxable at a gross value determined regardless of mortgages, and the mortgages may again be taxable assets of the creditors. Equalization procedures rarely prevent inequalities of assessment. But in spite of all these defects, local taxation of property has persisted to this day, largely because of a strong tradition and the absence of alternative sources of revenue.

The Sales Tax. On theoretical grounds, sales taxes appear highly objectionable, because they are not closely related to ability to pay and are regressive relative to income. This is especially true if they are levied in the form of general sales taxes that apply to large groups of commodities. Excise taxes on specific commodities may be less regressive if they are limited to articles not generally purchased by people of low means. But as consumption patterns are standardized over wide ranges of income, within such ranges even special excises of the described variety are regressive.

During World War II and the Korean War the federal government greatly increased the range of its excise taxation. Relaxation of this type of taxation has come only haltingly. Excise and sales taxes often are considered expedient because of the relative stability of revenue provided by them: under the influence of a recession, income tax yields may fall drastically; whereas the yield of a sales tax, geared as it is to the rather stable level of consumer expenditure, may hold up better. This consideration will especially appeal to the revenue authorities of the states, which have only limited opportunities for meeting their financial requirements by borrowing and which will claim lack of ability to avoid tax policies that accentuate business fluctuations.

Sometimes sales taxes are recommended on the ground that they make people conscious of taxation and thus stimulate their interest in public affairs. However, with the extension of the income tax to lower and lower income brackets, this argument no longer carries much conviction. Some students of public finance are inclined to make light of the regressive burden of sales and excise taxes on low-income groups, pointing out that taxes on cigarettes, alcoholic beverages and other articles, which are subject to especially high rates of taxation, can be avoided by means of the simple device of abstaining from the consumption of such and other "luxuries." The point, however, is that the tax collector, when levying these taxes, is well aware of the fact that the levy ordinarily will have little or no effect on the quantities consumed.

The principal factors which explain the popularity of the sales tax is the great ease with which it is levied and the minuteness of the burden

which such taxes impose on the variety of petty transactions that occur in everyday life. Moreover, they will not stifle the incentive to produce to the extent to which it might be done by income tax rates whose progressiveness already affects the lower brackets. If the outlay of the consumer increases by the amount of the sales tax, it must be earned before a purchase can be made; and a greater productive effort must be made in order to earn it. If the equivalent amount were to be levied as the result of an increase in the income tax rate on the bracket into which additional productive efforts would drive the taxpayer, he can fail to come forth with these and still maintain his consumption unimpaired.[25]

Death Taxes. Death taxes are enacted either in the form of inheritance taxes or in that of estate taxes. An inheritance tax is levied on the share of the estate which is passed on to the heir, while an estate tax is laid on the value of the estate of the decedent. Estate taxes are more easily administered; but inheritance taxes permit of graduation depending on special characteristics of the heir, such as the nature of his relation to the deceased or his wealth.

The federal estate tax, which has been a permanent part of the revenue system since 1916, exempts the great majority of all estates—those below $60,000. Other countries have exemptions that are considerably lower. In Britain, for example, the exemption is the equivalent of $8,400, and the rates of the tax progress to still greater heights than they do in the United States. Here the maximum rate is 77 per cent and it is levied on the excess of estates over $10 million. In Britain the top rate of 80 per cent falls on the excess of estates over the equivalent of $2.8 million.

Death taxes are also levied by virtually all states, Nevada being the only exception. Most of the states have chosen inheritance taxes. While exemptions generally are considerably lower than those allowed by federal law, so also are the rates imposed by the state taxes.

An important justification of death taxes relates to the preponderance of intangible wealth in modern societies.[26] Stocks, bonds, and money are in the nature of claims to tangible assets, present and future. In a sense it is easier to accumulate and hold on to intangible assets than to tangible ones. If no ceiling is placed on the acquisition of such claims by way of inheritance, the receivers of income from work and the business people, who represent the more active and vigorous part of the population, will be unduly restricted in their power over current output by those upon whom claims, accumulated in the past by the efforts of others, have fallen like windfalls.

The very fact that intangible assets loom so large among modern forms

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[25] This argument has been developed in a conversation with Professor Walter Morton of the University of Wisconsin.

[26] A. A. Berle and Victoria J. Pederson, *Liquid Claims and National Wealth* (New York: Macmillan Co., 1934).

of wealth also facilitates the payment of death duties. They are more easily borne in modern societies than in primitive communities where practically all wealth was tangible and thus had to be broken up and sold in order to satisfy the tax collector. Nevertheless, there are many instances where the payment of a large death tax would force costly liquidation of assets. The possibility, though it always exists when property is taxed, is more burdensome in the case of the death than in that of the property tax because of the relatively larger sums of money required for the payment of the former. Relief may be granted by liberal extensions of the period of payment or by allowing payment in kind, limited to certain types of assets.

Death taxes operate against further concentration of wealth and income. It is unlikely that they discourage savings by frustrating the family motive for accumulation, and if they do, the effect would be small because of every hundred adults who die in a year less than two leave estates subject to the federal tax. A multiplicity of devices is on hand with whose help the burden of such taxes can be avoided or diminished. Wealthy people may dispose of their property by means of gifts *inter vivos*, on which taxes are less. Or they might prefer the trust form of property disposition. A grandfather, for example, may leave his property in trust (see p. 342) for his grandchildren, thereby eliminating the death tax liability of the second generation on his property. If he establishes the trust in the form of a gift rather than at death, the much less burdensome gift tax takes the place of the death tax. Income of the trust may be taxable at lower income tax rates than it would if it were income of persons in high income tax brackets. Many other arrangements are available for the purpose of judicious estate planning, with resulting alleviation of the burden of death taxes.[27]

SOME CONSEQUENCES OF HIGH TAXES

We have seen that the principle of progressiveness justifies the levy of high taxes on high incomes, and as our per capita income is high, we should have little reason to complain. However, high rates of taxation do have certain consequences about which one cannot fail to have misgivings. They are a powerful stimulus to avoidance, and the desire to avoid taxes has in some important ways affected the structure of our economy. Moreover, while avoidance is perfectly lawful, the dividing line between avoidance and unlawful evasion cannot always be drawn sharply. Just as high rates of taxation have stimulated avoidance, so they have been a motive for evasion. They have lowered the moral climate of our society, as has the persistence of loopholes due to political pressure.[28]

[27] See *Estate Planning* (Chicago: Commerce Clearing House, 1959), and, for an over-all view, Butters, Thompson, and Bollinger, *op. cit.*, chap. xv.

[28] See John L. Hess, "The Gentle Art of Tax Avoidance," *Reporter*, April 16, 1959, pp. 12–17; Sidney A. Gutkin and David Beck, *Tax Avoidance vs. Tax Evasion* (New York: Ronald Press Co., 1958); Frank Gibney, *The Operators* (New York: Harper & Bros., 1960).

People of means and corporate managers have come to explore the "tax angle" of virtually every transaction they undertake. They are advised by some 7,000 attorneys who specialize in taxation—twice as many as there were in 1950—and over 80,000 licensed tax counselors. Much the most favored device to reduce taxes is to convert into capital gains income that otherwise would be taxable at the regular rates. Many corporate officers receive as part of their compensation stock options which give them the right to purchase shares of stock of the company at a stated price. If the latter then goes up, the difference is taxable as a capital gain at a maximum rate of 25 per cent.

Deferment of part of the pay until old age, and private pension plans are other devices to reduce the burden of the income tax. They may attach the employee to his firm in a manner resembling the attachment of the medieval worker to the land, and create what has been referred to as a new feudalism. Employer contributions to these and other "fringe benefits" have doubled during the 1950's; they are not taxed as current income of the beneficiary.

Many other devices are much more complicated and defy description in a few words. People of means may establish trust funds or obtain corporate charters in a foreign "tax heaven" such as the Bahamas, where there is no income tax. They may set up foundations or other nonprofit organizations, to which they transfer much of their wealth, thereby avoiding the estate tax, and retain a controlling interest for the family. If they have unrealized capital gains, they may turn the securities over to a university, to Pomona College, or other leading institutions which have adopted the so-called "Pomona Plan," which will sell them, invest the proceeds in tax-exempt bonds and pay a tax-free life income to the donor and his survivor. This saves the tax on the capital gain, the income tax on the life income, and the estate tax in one stroke; the life income is larger than it would be if its source had been reduced by the tax on the capital gain; in addition, the donor can deduct the contribution from his taxable income up to 30 per cent of his adjusted gross income. When he and his survivor are dead, the university can put the acquired securities to its own use. It is to be expected, however, that if this plan spreads, Congress will modify the tax law, just as it did some years ago when a number of institutions of higher learning used their funds for the acquisition of business enterprises. For contributions made since December, 1960, the Internal Revenue Service insists on the payment of the tax on the capital gain.

Loopholes may persist for long when they are protected by an effective lobby. Some consider as a conspicuous loophole the "depletion allowance" of 27.5 per cent of gross income from oil and gas wells which the producers of oil and gas may deduct from their income. As they may do this year in year out, the cumulated allowances may grow to be a multiple of the entire investment. Those who are opposed to it hold that this arrangement grants

the oil industry a subsidy of some $700 million a year, possibly justified in wartime to stimulate production for strategic reasons but even then more adequately provided in another form. With oil supplies so plentiful that domestic production and imports are restricted, it is said that the only effective argument in favor of the retention of the allowance consists of the votes of the Senators from the Southern and Southwestern states. However, there are others who consider this too simple an answer to a complex of difficult questions. There is no doubt that for individual investors in high income tax brackets the liberal depletion allowance is a powerful inducement to invest funds in the oil business, as witness their heavy representation among people of great wealth (see p. 245). Again, there is no doubt that some allowance must be granted for the depletion of an exhaustible resource, but the exact determination of the amount to be allowed is a matter about which reasonable people may have different views. Prospecting for oil goes on at many places, but only a few will yield oil. If the present allowance makes it possible for a producer to recover a multiple of the investment in a gusher, this may only constitute compensation for prospecting that does not produce results. Moreover, it has been pointed out that the profits of the oil industry do not differ substantially from those of other industries, and if this is so, it is likely that liberal allowances have *their principal effect on the product price rather than on profits.* If the allowance were drastically curtailed, it may well be that the industry would respond with higher prices, further restrictions of domestic production, and increased imports.[29]

Turning now to tax evasion, we come across the simplest and most far-reaching device under this heading: failure to report income. It is estimated that over 50 per cent of interest income and 14 per cent of dividend income, altogether about $5 billion, remain unreported and escape the tax collector. Bills to have such income deducted at the source have passed the House of Representatives but failed in the Senate. Failure to report other types of income is widespread among professional people and small proprietors who have occasion to earn it in the form of cash. Some 30 per cent of the income of these people has been estimated as unreported. The deduction of personal expenses as business costs and the padding of expense accounts, facilitated by the use of credit cards, are other common devices of tax evasion. The amount involved has been estimated at $5 billion a year, a sum large enough to support many a fine establishment in the restaurant and amusement industry, and creating in the process what has aptly been called "the society of kept men."[30]

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[29] The discussion of the depletion allowance owes much to a conversation of the author with Professor Walter Morton.

[30] Russell Lynes, "Visit to the World of Expense Accounts," *New York Times Magazine,* February 24, 1957, p. 20.

THE PUBLIC DEBT

The Growth of the Public Debt. There remains to be discussed the public debt. Taxation, high as it has been ever since World War II, has not prevented the rise of a huge public debt. Debts, public and private alike, have grown to a very large size, reaching a total of $1,000 billion in 1960, five times as much as in 1930. Relative to other relevant variables, this large amount of debt constitutes a new feature of the American economy. In 1930, total public and private debts were approximately equal to the gross national product; in 1960, they were twice as large (see Fig. 51).

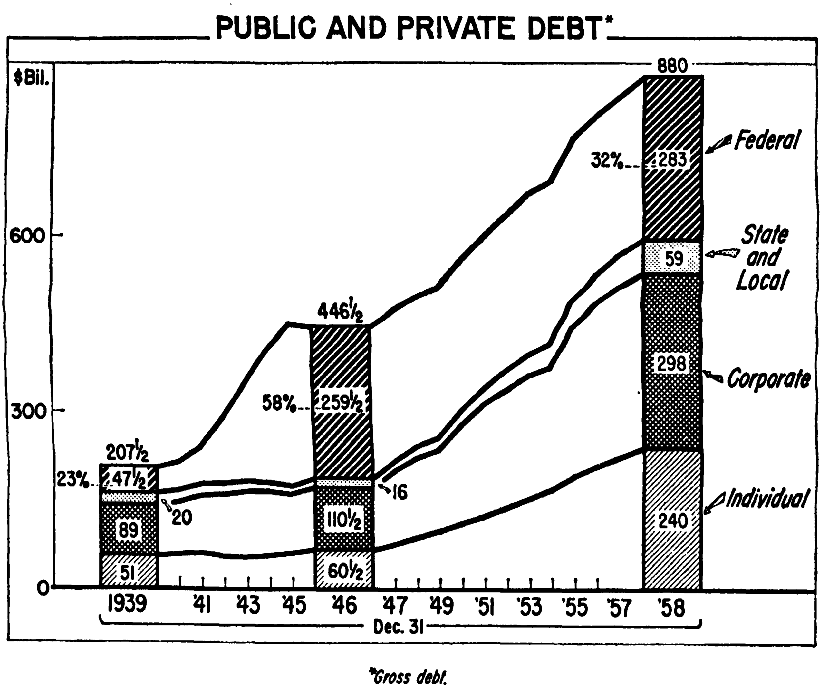


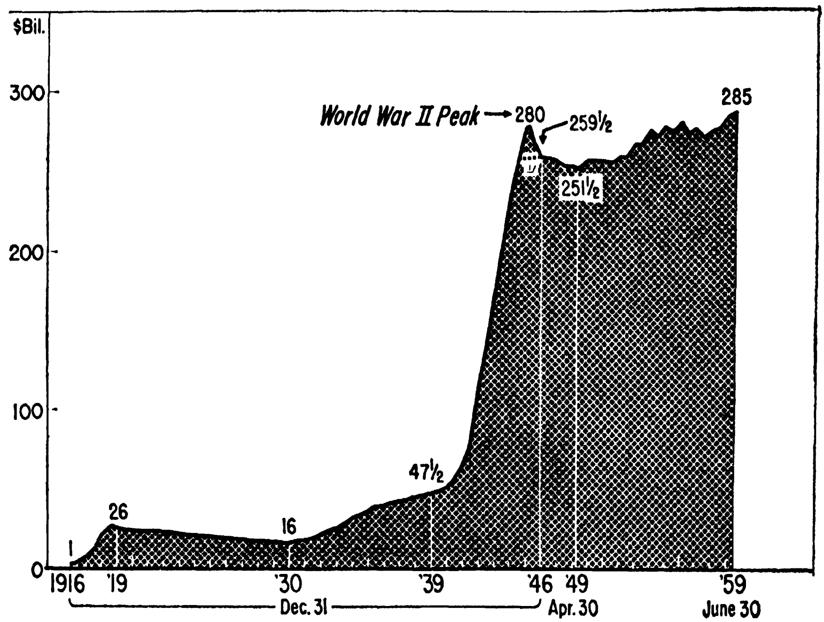
FIG. 51. Since World War II, private debts have increased faster than public debts. From *Report* of the Secretary of the Treasury, 1959, p. 262.

Until 1942, private debts exceeded public debts. From then on until 1950, public debts exceeded the former by a margin which became so wide in 1945 that private debts amounted to not much more than one third of the combined public and private debts. When the wartime expansion of the public debt came to its close, private debts moved to the fore again. They are now over 50 per cent larger than public debts.

Although state and local debts have increased at a fast rate in recent years, the federal debt is about five times the amount of the combined state

and local debts. The great bulk of the federal debt was incurred during World War II, when it rose from $69 billion in 1941 to $293 billion in 1945. Since then it has declined in some years and increased in others, reflecting the budgetary situation. Over the postwar period as a whole, it has continued to rise, especially after 1951 (see Fig. 52).

THE PUBLIC DEBT OF THE UNITED STATES GOVERNMENT
(INCLUDING GUARANTEED OBLIGATIONS)



[1]Excluding Victory Loan proceeds used to repay debt in 1946.

FIG. 52. Note the rise of the federal debt during World War II. Since the mid-forties the debt has expanded only moderately. From *Report* of the Secretary of the Treasury, 1959, p. 20.

It is more than doubtful whether the successful prosecution of World War II would have been possible without substantial additions to the national debt. In theory, it is occasionally considered feasible to finance the wartime requirements of the government entirely out of taxes. But a drastic program of this sort, as it would become necessary during a great war, would paralyze the incentive to increased production and intensified economic effort without which modern wars cannot be won. This does not mean that there were no alternative policies at hand which to some extent might have restrained the expansion of the debt. Its complete avoidance, however, was all but impossible.[31]

[31] Henry W. Spiegel, *The Economics of Total War* (New York: D. Appleton-Century Co., 1942), pp. 129 f.

The expansion of the debt during the thirties was the accompaniment of depression. It was hoped to relieve it by means of income-generating, anticyclical spending. This theory is usually explained with the help of the multiplier and the principle of acceleration, tools of analysis which have been studied in Chapters 6 and 9. As has been seen, an additional outlay for investment or consumption will, in the presence of unemployed resources, draw these into the productive process and induce an over-all increase in employment and income over and above the initial ones. Some of the difficulties with which such policies must cope have been pointed out above. There is the chance that the effects of the initial catalyzing agent, of public investment or consumption outlays, as the case may be, will be offset or more than offset by reductions of private investment, motivated by revulsion against government spending and fear of its consequences. For example, when the Tennessee Valley Authority was established in 1933, many people feared that private investment in the production of electrical energy would dry up.

Important also is that the proper size of the initial outlay cannot be known with a high degree of certainty. If it is too small, it will induce additional production and employment only to a minimal degree. If it is too large, it will make for inflation. But in the absence of more suitable instruments to cope with deficient private expenditures that spell depression and unemployment, there is little doubt that governments will feel justified in incurring budget deficits in such situations. Sometimes this policy is rationalized further by insistence that budgets should produce a surplus in periods of prosperity and that this should be used for a reduction of the debt. While a policy of this sort was followed generally when the relevant magnitudes were small, as, for example, in the case of the liquidation of a substantial portion of the World War I debt, it is unlikely that without extremely violent inflation budget surpluses could be produced in the foreseeable future that would depress the debt to a level close to the one it held only a few decades ago.

The Debt as Inflationary Potential. Dollar for dollar of the debt is offset by corresponding credits—claims held by private investors and institutions (see Fig. 53). Government securities held by the commercial banks are the equivalent of 50 per cent of total demand deposits. If the banks were able to sell only one half of their holdings, they could expand their loans and thereby more than double the money supply. Thus the debt represents an inflationary potential of great magnitude that in the absence of proper monetary policies can add fuel to the forces of inflation. The debt may have this effect long years after it has been incurred, and the effect will be most pronounced when the Federal Reserve System supports the prices of government bonds. Antidepression spending, as it occurred during the thirties, had then no undesirable inflationary effects, because it took place in an environment characterized by unemployment and idle resources. But when

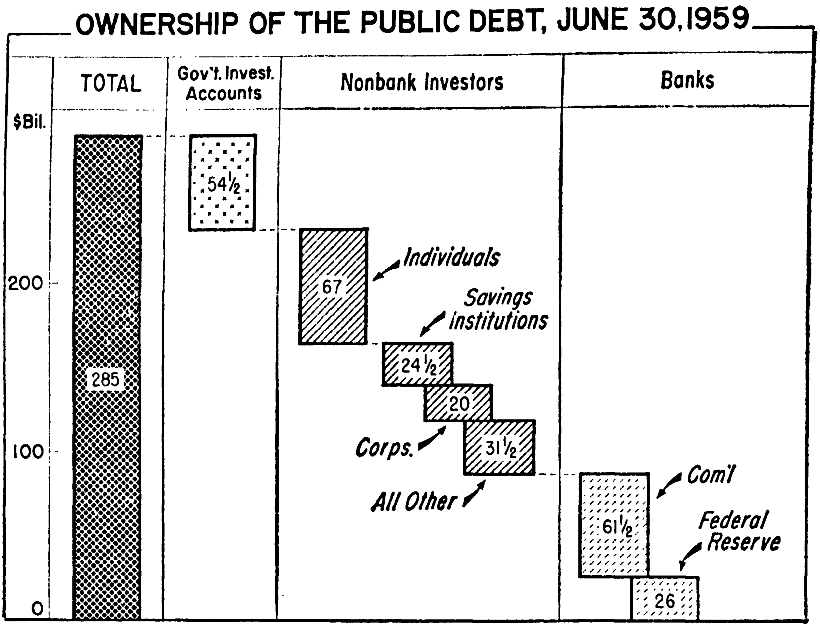


FIG. 53. This chart shows the principal holders of the federal debt. From *Report of the Secretary of the Treasury, 1959*, p. 33.

the economy operates more fully at capacity, the inflationary potential of highly liquid assets may make itself felt; and this may occur substantially later. Inflation and expansion of the debt are not necessarily simultaneous. The World War II debt, for example, was incurred at rising price levels; but prices rose much more rapidly after the end of the war when the debt had become stabilized and even was reduced.

Some will argue that the debt, by the same token by which it represents an inflationary potential, will tend to place a floor under downward movements of spending. This may be true to the extent to which the debt, by equipping people with liquid assets, might restrain their liquidity preference in the face of falling incomes. In other words, a curtailed flow of new assets might not impress them as much as it would if they owned no federal securities to fall back on in the case of need. But there is a substantial degree of concentration with respect to the ownership of the federal debt, and only a relatively small proportion is held by private individuals.

Debt repayment, as has been seen (p. 167), may be deflationary under certain conditions. To the extent to which this deflationary potential is utilized, it may tend to offset the inflationary tendencies inherent in the government debt.

The Burden of the Federal Debt. The burden of the federal debt has been reduced by inflation but at the same time rising rates of interest have

made the service of the debt more and more costly. In per cent of the debt, interest due was 6 per cent during the Civil War. During World War I it rose from over 2 per cent to over 4 per cent. During the interwar period, interest rates declined, and public policy was effective enough to make this trend persist even in the face of very high levels of borrowing during World War II, which was financed at approximately 2 per cent. Later on, when much of the short- or medium-term debt had to be refinanced, this was done at ever rising rates of interest. Interest on the federal debt now costs over $9 billion a year, more than the total federal expenditures for all purposes in any year before 1941, except 1918 and 1919.

Interest-free federal financing is, of course, possible.[32] Instead of issuing interest-bearing securities the federal government might issue money or certificates which bear no interest. Such procedures, however, may seem objectionable to those who consider the inflationary potential of money greater than that of other assets, highly liquid as these may be. Moreover, interest-free financing would call for readjustments of the policies of institutional investors whose portfolios contain substantial amounts of federal securities. Banks would be deprived of a considerable portion of their earnings now derived from the government's willingness to sell them interest-bearing securities. Close to 30 per cent of the loans and investments of the commercial banks are composed of these. If they would bear no interest the banks would have to increase substantially their charges for checking services.

The payment of interest on the public debt involves a transfer of money from the taxpayer to the bondholder. What the taxpayer loses, the bondholder gains. Interest payment is thus of some significance for the distribution of wealth and income. If all taxpayers were poor and all bondholders rich, the distribution would become more concentrated; if all taxpayers were rich and all bondholders poor, income would be more widely diffused. Neither of these extremes prevails, of course, in reality. But it may well be that the distribution of the federal tax burden parallels so closely the distribution of ownership of federal securities that the groups which bear the brunt of the former are identical with those which receive the bulk of the interest payments. If this were so the problem of the transfer from taxpayer to bondholder would be little affected by the size of the debt. Since interest payments have grown so much in amount, this whole question deserves more attention than has been devoted to it.

Debt Management. When the public debt expanded during the war period, the Treasury, eager to pursue a policy that would involve a minimum of interest cost, issued short-term securities in preference to long-term ones which carried a higher rate of interest. A large proportion of the federal debt, to this day, is of the short and intermediate variety or falls due

[32] Jesse V. Burkhead, "Full Employment and Interest-Free Financing," *Southern Economic Journal*, Vol. XIV, No. 1 (July, 1947) pp. 1-13.

until the old issue matures, it may have to pay still higher interest rates or may not be able to sell long-term bonds at all. Those opposed to them hope for lower interest rates in the future; they insist that advance refunding of the type illustrated here unnecessarily burdens the Treasury with higher interest cost for years to come.

Some of the matters which occupy us in the present context have already been discussed in Chapter 8, where the monetary and credit policy of the government was subject of review. As to the Federal Reserve open-market policy, that is, its purchase and sale of securities to make money easier or tighter, as the case may be, this policy has since 1953 been one of "bills only." Under this policy the Federal Reserve will confine open-market transactions to short-term securities, preferably Treasury bills of 90-day maturity, and abstain from purchases of intermediate- or long-term issues. The aim of this policy reflects the prevailing ideas of the Federal Reserve authorities about the desirability of a minimum interference with what is claimed to be a "free market" for government securities, more specifically with the structure of interest rates for the various types of different securities. It is held that open-market transactions in long-term securities, where the interdependence of price and yield is much more pronounced than in the case of short-term securities, would weaken the market for these securities by bringing into it a new element of uncertainty. However, these arguments impress as dubious those students of finance who insist that the bills-only policy has meant the surrender, by the Federal Reserve, of an effective control over long-term rates of interest, and that such control is a more worthwhile aim than nonintervention with a market for government securities whose freedom is considered spurious by many thoughtful observers.[33]

The market for government securities[34] is indeed a peculiar one, consisting, as it does, of a mere seventeen authorized dealers. They handle the Federal Reserve's open-market transactions, play an important rôle in the placement of new issues, and match the public's purchases and sales of government securities. By doing this, and maintaining in these securities a position of their own, they "make a market" for government securities. They operate with finely sharpened pencils since a price change involving

[33] The bills-only policy is defended by W. W. Riefler, "Open-Market Operations in Long-Term Securities," *Federal Reserve Bulletin*, November, 1958, pp. 1260–74; Ralph A. Young and Charles A. Yager, "The Economics of Bills Preferred," *Quarterly Journal of Economics*, August, 1960. For a critical review see Warren L. Smith, "Debt Management in the United States" (cited more fully below, p. 178 of the Bibliography), pp. 118–34.

[34] See William B. Harris, "The Mysterious Market in U.S. Securities," *Fortune*, February, 1959, pp. 100 ff.; Board of Governors of the Federal Reserve System, *The Federal Funds Market* (Washington, D.C., 1959); "The Government's Management of Its Monetary, Fiscal, and Debt Operations," *Hearings* before the Joint Economic Committee on Employment, Growth and Price Levels, 86th Cong., 1st sess., Part 6B (Washington, D.C.: U.S. Government Printing Office, 1959).

a tiny fraction of a dollar may turn profits into losses and vice versa on transactions which often go into many millions of dollars. All told, the seventeen dealers do a business whose volume is estimated at from $300 billion to $500 billion a year. Since margin requirements for holding federal securities are very low—5 per cent or less—they require only a relatively small amount of capital of their own. With the great bulk of their holdings on credit, secured by the pledged government issues, and with the banks controlling the source of this credit, it is the banks which in a sense determine how many firms are to be in this business.

Apart from the Federal Reserve, the principal clients of the dealers are financial institutions which hold the largest share of the government debt. Short-term issues are also often purchased by nonfinancial corporations which prefer to hold highly liquid funds, needed, say, for the payment of dividends, in the form of interest-bearing assets rather than in nonearning cash.

How the market for federal securities can be strengthened and debt management be improved, these are indeed issues of great urgency that as yet have not been resolved. The Eisenhower Administration had hoped to consolidate the debt into issues of longer maturity; instead, the average length of the marketable debt was substantially lower when it went out of office than it had been in 1952. Debt management is essentially a new governmental function in the United States. It is a task that is not mastered without trial and error and the lapse of time necessary to acquire experience and to habituate the mind to the use of new methods to cope with new problems. With debt management the responsibility of the Treasury, and the Federal Reserve pursuing monetary and credit policies of its own, some observers question the wisdom of continued formal independence of the Federal Reserve from the Treasury. In this matter they have on their side the high authority of the British Radcliffe Report, an influential statement on monetary policy, the authors of which have rejected the view that the public interest requires that the central bank should be assured complete independence from political influence. "Monetary policy," they say, "cannot be envisaged as a form of economic strategy which pursues its own independent objectives. It is a part of the country's economic policy as a whole and must be planned as such."[35] Others, however, point to the lessons of history and allege that domination of the central bank by the Executive has often invited financial disaster.

To strengthen the market for federal bonds, it has been proposed to make a shift from stocks into bonds more attractive by deferring the capital gains tax on stock market profits if the stock is sold and the proceeds invested in government bonds. Others want to allay the fear of the impact of inflation on the real value of bonds by the issue of obligations that

[35] Committee on the Working of the Monetary System, *Report*, Cmnd. 827 (London: Her Majesty's Stationery Office, 1959), p. 273.

promise to return dollars of constant purchasing power, the redemption value to be adjusted by a price index. Such securities have indeed been issued with good results in a number of foreign countries. However, it seems safe to say that measures of this type will contain a promise of success only if the public has good reasons not to anticipate higher and higher interest rates in the future. It is this anticipation which deters prospective purchasers of bonds, who have seen a massive destruction of assets by the rise of interest rates in the past and project this experience into the future. Finally, there are those who would make it mandatory for financial institutions and institutional investors to hold certain portions of their portfolios in long-term government securities. "Forced loans" of this type are an old, established component of the arsenal of war finance. It is doubtful whether their introduction will be acceptable in a situation short of a hot war.

SUMMARY

Public budgets have increased at unprecedented rates on account of inflation, war, social policy, depression, and the assumption of new governmental functions. Government expenditure represents approximately one third of personal income. Until the Great Depression, local budgets were far larger than those of the federal government and the states; now local and state budgets together stand for over 40 per cent of the combined total.

The growth of public budgets on the three levels of government calls for co-ordinated policies. Co-ordination is required by fiscal policy which considers public finances in their relationship to national income and employment and to the price level. Fiscal policy is of much importance, and its study supplements that of the revenue aspects of taxation. Taxes are traditionally considered instruments of revenue; apart from this they are used as instruments of control—of a specific industry, for example, or of the aggregates affected by fiscal policy.

Federal tax revenue originates mainly from the income tax; State revenue, from sales taxes; and local revenue, from property taxes. Taxes can be classified with the help of various criteria. One of these is shiftability or incidence. Direct taxes cannot be shifted by the payer to somebody else; indirect taxes can. Another criterion is the progressive, proportional, or regressive character of a tax or tax rate. Progressive taxation now is generally regarded as fulfilling best the requirements of justice and equity in taxation. Justice in taxation is most often defined as taxation in accordance with the principle of ability to pay, and ability to pay is measured preferably by income. The most important progressive tax, and the most important tax altogether, is the federal income tax. In consequence of reduced

exemptions and higher incomes, it is paid now by more than 60 million people.

Property taxes have untold defects, but they have been for long the mainstay of local finances, and no other sources are readily available.

The sales tax, which in its various forms supplies roughly one half of state tax revenues, likewise invites criticism. It is regressive relative to the income of the taxpayer. But it is easily administered and paid; and in spite of its regressive character the burden which it places on the ordinary transactions of daily life is, if seen in isolation, so small that it is not considered unduly cumbersome by the taxpayer.

Death taxes, in the form of estate and inheritance taxes, are levied by the federal and state governments. These taxes do not stifle investment in countries with a large supply of saving; they operate against concentrations of wealth and income. The initial exemption allowed for the federal tax is rather high.

Tax revenues of unprecedented amounts proved inadequate to stem the growth of the federal debt. From 1930 to 1960, it increased by $300 billion. The debt represents an inflationary potential of considerable danger. The interest burden is substantial. The payment of interest involves a transfer of money from the taxpayer to the bondholder; the extent to which both groups are identical is an open question. There is the possibility of interest-free government financing, but this innovation would call for substantial adjustments in the policies of institutional investors.

The management of the public debt confronts the monetary authorities with new and important problems which as yet have found no adequate solution.

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STUDY QUESTIONS

1. Why have public budgets increased so much?
2. What is the difference between the cash budget and the administrative budget of the federal government?
3. What is the "below the line" part of the British budget?
4. What are the reasons for the financial stringency observed in recent years among many state and municipal governments?
5. Is it possible for the lower political subdivisions to engage in "fiscal policy" and deficit financing?
6. What is the most important tax revenue of the federal government, of the states, and of the local governments?

7. Can you uphold the progressive income tax merely on the basis of the principle of diminishing marginal utility of money?
8. What is the purpose of the income tax exemptions?
9. What is the reason for allowing husband and wife to file joint income tax returns?
10. What are the principal criticisms of the property tax?
11. What are the principal criticisms of sales taxes?
12. How are estates and inheritances taxed?
13. Which has grown faster in recent years, public or private debt? (See *Survey of Current Business.*)
14. What is meant by the "management of the federal debt"?
15. What are the pros and cons of the "bills-only" policy of the Federal Reserve?
16. What are the pros and cons of advance refunding of the federal debt?
17. What are the characteristics of the market for government securities?
18. Are you in favor of formal independence of the Federal Reserve from the Treasury?
19. What are some important examples of tax avoidance?
20. What are some important examples of tax evasion?

Chapter 19 ECONOMIC PROBLEMS OF NATIONAL DEFENSE

CHARACTERISTICS OF DEFENSE

Federal purchases of goods and services for national security had been in the neighborhood of $1 billion during the 1930's. In 1941 such expenditures rose to more than $13 billion, and in the following years they reached a peak of over $88 billion. After the end of World War II, national security expenditures fell off to $15 billion, but the uncertain international situation during the late 1940's and 1950's was responsible for a new rise. From 1958 to 1960 budget expenditures for major national security items were in the neighborhood of $45 billion a year (see Fig. 55). Of this amount, $41 billion is for military defense in general, $2.5 billion for the development and control of atomic energy, and close to $2 billion for military assistance to foreign countries. Approximately four million workers, the equivalent of one quarter of all employees in manufacturing, owe their livelihood directly to defense.

Swift technological change with resulting rapid obsolescence has been a feature characteristic of the production of modern weapons. Defense production no longer turns out large numbers of standardized articles of relatively simple design. Instead, the means of destruction have become much more complex, forming whole "systems," and their firepower is vastly greater. These characteristics of modern defense production have important economic implications.

The complexity of modern weapons, their production in relatively small numbers, their newness, and their high firepower have added to their cost. A missile that replaces the conventional antiaircraft shell costs sixty times as much as the latter. A nuclear-powered submarine is ten times as expensive as is a submarine of World War II vintage, and so is a jet fighter com-

pared with a World War II Navy fighter plane. The cost of an intercontinental ballistic missile was estimated at $2 million in 1957, that of a manned round trip to the moon at $2 billion.[1]

FEDERAL, STATE, AND LOCAL GOVERNMENT PURCHASES OF GOODS AND SERVICES, IN BILLIONS OF CONSTANT (1959) DOLLARS

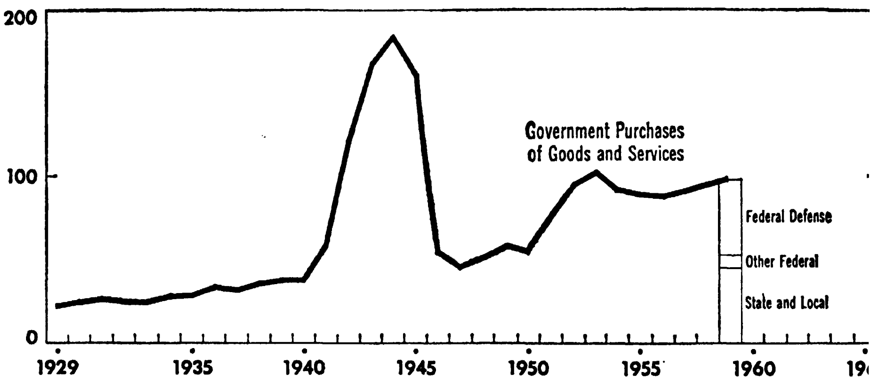

FIG. 55. Note the large amount of government expenditures for defense, which have been a principal factor in raising government expenditures above the prewar level. From *Survey of Current Business*, July, 1960, p. 5.

No wonder then that defense contracts for many of the modern weapons are concentrated among large companies. Some 600 concerns have contracts valued at $1 million or more. Voluntarily until 1959 and since then on a mandatory basis, they farm out a part of their business among subcontractors. Some problems have arisen in connection with subcontracting because the small firms complain that the subcontracts deprive them of their trade secrets, which they must share with the prime contractors.[2]

As new and complex devices are developed, relatively little military procurement can be done in response to competitive bidding, a method of purchasing that lends itself principally to readily recognizable standardized items that are clearly specified. Hence, about 85 per cent of military procurement is done by negotiated contracts, usually on a cost-plus basis, with the possibility of later renegotiation to recover unusually high profits. Not infrequently orders are canceled when new and more effective materials come to the fore.

[1] President's Science Advisory Committee, *Introduction to Outer Space* (Washington, D.C.: U.S. Government Printing Office, 1958); "The Cost of Outer Space," *Economist*, July 9, 1960, pp. 183 f.

[2] "Proprietary Rights and Data," *Hearings* before Subcommittee No. 2 of the House Committee on Small Business, 86th Cong., 2d sess. (Washington, D.C.: U.S. Government Printing Office, 1960).

The changing emphasis on different types of weapons has had profound effects on various regions and industries. Detroit, an important arsenal of World War II, and the great concerns of the automotive industry no longer count as heavily as suppliers of military hardware. General Motors, which for many years ranked first in military orders, lost its place to the great aircraft manufacturers. However, since the late 1950's defense spending for manned aircraft has declined sharply—as have orders for commercial airliners—and the position of the industry has become a precarious one (see Fig. 56). Employment fell by 25 per cent. The consequences of this

DEFENSE EXPENDITURES FOR MAJOR TYPES OF WEAPONS

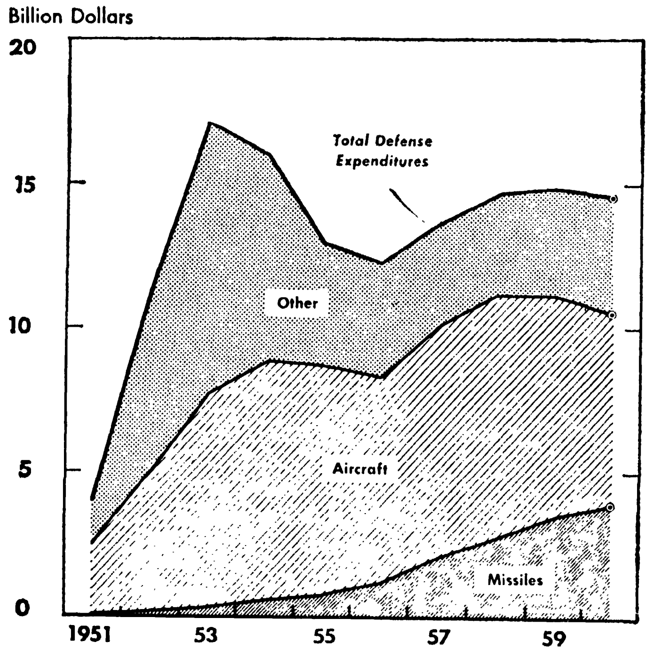

FIG. 56. Note the rise of missiles and the relative decline of aircraft and conventional weapons. From *Survey of Current Business*, November, 1959, p. 6.

were felt in Los Angeles and other centers of the aircraft industry.[3]

In 1958 the three leading defense contractors were Boeing Aircraft Company of Seattle with \$1.9 billion orders, General Dynamics with \$1.5 billion, and General Electric with \$952 million. As increasing reliance is placed on missiles, the producers of electronic and electrical equipment absorb a larger and larger share of the defense business. The missile makers employ a type of personnel quite unlike that found in the mass-production

[3] Charles J. V. Murphy, "The Plane Makers Under Stress," *Fortune*, June, 1960, pp. 134 ff.

industries turning out standardized weapons. In some of these firms, the engineers constitute one half of the labor force. Indeed, huge numbers of scientists, technicians, and research workers owe their livelihood to the cold war. As the military establishment has become the most important source of funds for research, the impact of this has spread through the universities and it has not been limited to the natural-science departments.

With the rate of obsolescence of weapons so high, with the technical complexity of new weapons so pronounced, and with so much of the work shrouded in secrecy, it is not surprising that the adequacy of the defense effort is a matter about which the average citizen can not easily have an informed opinion. He is confused further by the jockeying of the services, whose conventional division of functions is threatened by the rise of new weapons, and by the rivalry of the munitions makers which has given rise to advertising campaigns and lobbying. Since a number of communities are more or less completely dependent upon a military installation or a single supply firm, the resulting pressure and resistance to change creates an additional determinant of military policy against which it is not always possible to stand up.

Much of the responsibility for over-all planning and co-ordination of the defense effort rests with the National Security Council, a statutory body created in 1947, which is headed by the President and composed of a number of department heads and other high-ranking officials of the administration. The effectiveness of this agency is a matter of controversy.[4] Those who consider our defense effort as inadequate make much of the role of the Treasury and the Bureau of the Budget in the deliberations of the council, where they are said to give undue weight to budgetary considerations. It seems that the Budget Bureau has indeed assumed the function of a supreme arbitrator in military affairs, and this has become a matter of deep concern to all those who are doubtful whether the Bureau can fulfill such a function without detriment to our national strength.[5]

ECONOMICS OF INTENSIFIED DEFENSE

"Budgetary defense," that is, one whose intensity is determined by considerations which give great weight to the desire for economy, may seem too small. The question then arises whether military expenditures can be raised to higher levels, and what the economic consequences of this would

[4] See Hans J. Morgenthau, "Can We Entrust Defense to a Committee?" *New York Times Magazine*, June 7, 1959, pp. 9 ff.

[5] See Edward L. Katzenbach, "Bubud's Defense Policy," *Reporter*, June 23, 1960, pp. 25–30. On the general adequacy of defense and the feasibility of intensified effort, see Charles J. V. Murphy, "Is the Defense Budget Big Enough?" *Fortune*, November, 1959, pp. 144 ff.; Committee for Economic Development, *The Problem of National Security: Some Economic and Administrative Aspects* (New York, 1958); "Crossed Fingers on the Trigger," *Economist*, December 19, 1959, pp. 1159 f.

be. In providing answers to these questions, it will be convenient to introduce the notion of the real cost of defense. The cost of defense, in real terms, is equivalent to the opportunities that must be foregone because of the use of resources, natural and human, for military purposes. Whether this cost is burdensome, or positive at all, depends upon the general economic situation surrounding the defense effort.

Under Conditions of Unemployment. If there is unemployment, defense absorbs resources that otherwise would be idle. Thus the opportunity costs of defense during periods of unemployment are zero: the resources that are devoted to it need not be diverted from other uses. There are three qualifications to this statement. First, to the extent to which the defense effort absorbs exhaustible natural resources, these are gone for good and will not be available for use at a later period. The second qualification is based on the fact that the defense effort requires labor. But since, under conditions of unemployment, labor is withdrawn from idleness that is involuntary, no real costs in terms of sacrifice or cost of opportunity are incurred. Thirdly, however low the employment status of resources may be, it is likely that the defense effort, moderate as it may be, will require goods perhaps along a few specific lines where the supply cannot readily be expanded in the short period. In the case of such goods, so-called "bottlenecks" arise, specific shortages that call for satisfaction of nondefense requirements along a diminished scale.

Whatever the significance of these qualifications may be, it may be held that defense, if undertaken during periods of unemployment, not only does not require cost in real terms but actually induces an increase in employment and income over and above that represented by the defense effort itself. The mechanism which produces these effects is the well-known multiplier, explained on page 122. The rewards that accrue to the owners of productive services which are drawn into defense employment enable these to increase their rate of spending and thus induce increased activity in the consumer goods sector of the economy.

Under Full Employment. The foregoing discussion can be summarized in the statement that under conditions of unemployment the defense effort takes place by means of expansion of production. Once resources are fully employed, no further expansion of production is feasible. Full employment may come about as the result of defense-induced expansion, as it did during the early forties. Or the stepping-up of the defense effort may start under conditions of full employment. In such a situation the rate of defense production can be increased only by means of conversion of resources originally devoted to civilian purposes. Under conditions of full employment, defense thus requires the outlay of real cost. People must forego the use of goods for consumption or investment that would absorb resources earmarked for the defense effort.

These considerations can be expressed in the form of the familiar

metaphor of guns versus butter. Under conditions of unemployment the production of "guns"—military implements—does not occur at the cost of reduced production of "butter"—civilian supplies—because guns can be obtained with the help of idle resources. On the contrary, increased output of guns may induce, via the multiplier, increased production of butter. But once resources are fully employed the alternative of guns versus butter does pose itself. It is then no longer possible to produce all the guns and all the butter that would find a market. Increased munitions output requires sacrifices on the part of the civilian population. The steel, the manpower, and the plants that are made available for the production of weapons cannot be used for the production of automobiles.

The distinction between a defense effort under conditions of unemployment and under conditions of full employment, while it is a theoretically valid one, must not be allowed to becloud the fact that in a dynamic economy such as ours the notion of full employment or production has a good measure of flexibility. Population growth and rising productivity constantly expand the limit of our capacity. There are further possibilities for raising it by drawing on the reserve of "marginal workers," such as youngsters, old people, and women usually not in the labor force, and also by lengthening the hours of work. The potential of an economy such as that of the United States is enormous indeed. However, if the defense output is raised significantly, the conversion of production from civilian to military uses would begin to be felt more severely; and the control of inflation by means of taxation would have to be supplemented by direct controls. Gradually, the defense economy would assume the characteristics of a war economy.

THE SOURCES OF DEFENSE OUTPUT

Current Production. The brunt of the defense effort is borne by the generation living at the time when it is undertaken. The production of a missile or of an airplane requires current manpower. The automobile that must be done without because productive resources are diverted to munitions output is not available for current use. The defense effort is based on current production. Under conditions of full employment it reduces the share of civilians in the national income.

National Wealth. But current production, or the national income, is not the only source of defense production. The defense effort may also entail the liquidation of capital assets or national wealth. Such dissipation may assume various forms whose respective importance reflects the different structure of diverse national economies. In its most conspicuous manifestation the liquidation of national wealth may consist of the depletion of national resources such as oil or coal. A similar type of liquidation of capital may occur in the form of depletion of business inventories. Still another type of capital consumption may result from the cessation of ade-

quate provisions for the maintenance and replacement of productive facilities or of durable consumer goods such as houses and automobiles.

A country may also use its stock of gold for defense purchases from abroad. For the same purpose, it may liquidate foreign investments or incur foreign obligations. The effect will be the same if gold or foreign assets are not used directly for the payment of deliveries for defense but rather for civilian imports which, because of the utilization of domestic resources for defense, cannot be obtained at home.

The effect will again not be dissimilar if a country incurs foreign obligations as a result of spending for foreign military and economic aid, the maintenance of military installations abroad, troop pay, and the like. These payments, when acquired by foreigners, equip them with claims against the disbursing country and increase its short-term foreign obligations. This indeed has been the experience of the United States, which in 1960 faced short-term liabilities to foreigners amounting to $20 billion, not all of it, of course, due to spending for defense. This sum then exceeded the total value of our stock of monetary gold, which had been reduced to $19 billion partly as a result of the operation of the same factors which caused our short-term foreign obligations to increase. These matters will be discussed more fully in Chapter 22.

All these transactions are forms of capital consumption. They reduce the quantity and quality of wealth that can be passed on to future generations and in this sense represent a transfer of at least a part of the defense burden from the present generation to future ones.

FINANCING DEFENSE EXPENDITURES

The methods used for internal financing of defense expenditures do not affect, in themselves, the distribution of the defense burden over time. Contrary to popular opinion, it makes, in this respect, no difference whether a program of munitions production is financed from tax receipts or loans. In other respects, however, the method of finance is important because of its impact on economic institutions and because it determines the incidence of the burden on the different components of the population.

In the following discussion of defense finance, it is assumed that full employment prevails. If the government has placed orders for missiles that are to be produced with the help of resources otherwise devoted to automobile production, the rate of automobile output is bound to fall accordingly; and there will be fewer automobiles to go around. This effect itself, the negative defense effort, cannot be undone by methods of defense finance. The automobiles are not available if the missiles are paid with tax receipts, and they are not available either if the missiles are paid out of the proceeds of government loans. Defense finance, however, can go a long way in determining the distribution of reduced supplies among the population.

Inflation and Defense. Under the price system the placement of defense contracts by the government implies that productive resources are bid away from prospective civilian users. If the defense effort is not tax-financed, a higher level of prices results from this process of bidding. Civilian users are thus prevented from acquiring the goods, or from commanding the productive resources, which are needed for defense. Thus defense, if operating solely with the help of the mechanism provided by the price system, is inflationary under conditions of full employment, and its burden is borne by those groups of the population upon whom the incidence of inflation rests especially heavily: receivers of salaries and fixed incomes, bondholders, creditors at large, and wage earners with limited bargaining strength.

Since all defense expenditures of the government would accrue to the factors of production as increased income, their spending power would soon be raised to a dangerous level. With the enlarged incomes, they could again bid for the goods and resources needed for defense. If the government wants to secure the continued use of resources for defense purposes, it would be necessary to increase continuously the injection of new money into the economy. It is doubtful that defense production could function efficiently under the galloping inflation that would ensue.

There are a number of public policies with whose help the inflationary effects of full-employment defense can be minimized. They consist, in the main, of an increase in the rate of voluntary saving, of more severe taxation, and of the imposition of direct controls.

Increased Savings. If the people were to raise their rate of saving voluntarily when defense production expands, the concomitant reduction of consumer demand would allow the equation of supply and aggregate consumer and defense demand at a price level not substantially higher than that which prevailed in the absence of the defense effort. Some increase in prices is likely to occur, however, because of the emergence of bottlenecks and because the reduction of consumer spending may not set free exactly those resources which the government wants to absorb for defense. Instead of economizing on purchases of automobiles, people may restrict their visits to the theater. This will set free the services of operatic stars, while the demand for essential resources continues unabated.

While increased saving rarely will avoid completely an increase in prices, it will lead a long way toward this goal. For this reason, full-employment defense policies generally contain public programs aiming at the encouragement of voluntary saving. Savings regarded as the difference between income received and consumption, and consumption being reduced by increased savings, the form in which the savings are held makes, broadly speaking, little difference. They may be put into monetary hoards, bank deposits, life insurance policies, or government bonds. But the purchase of government bonds is often the most conspicuous manifestation of increased

saving. The success of an exhortation, "Save more," can be gauged less easily than the success of a campaign aiming at increased sales of government bonds. For this reason, and also to encourage the widespread holding of debt, public policies designed to increase the rate of saving often assume the form of high-pressure bond sales. Arrangements of this sort fail to serve their purpose if the public simply exchanges for bonds assets accumulated in the past, or if it finances its purchases of bonds with current income that would be saved anyhow.

The statement that the form in which savings are held is substantially irrelevant stands modification in one important respect. If the savings are held in a very liquid form, their mobilization may be encouraged prematurely. The terms on which government bonds are sold to the public often are so constructed that they contain an inducement to hold the bond until maturity. For example, the redemption scale of the Series E savings bonds is so constructed that the rate of interest gradually increases if the bond is held until maturity.

Tax Policies. If the defense effort is vigorous, a program of voluntary saving will not restrain inflation adequately. Recourse is then necessary to more severe forms of taxation. In order to discourage consumption rather than saving, tax policies may, under these circumstances, tend to be less progressive, or more regressive, placing a relatively high burden on those who, in the absence of such taxation, would be inclined to spend on consumer goods the money which the tax collector receives. A national sales tax, general or on a wide range of goods, may be an instrument used in such a situation.

In any event, taxation would have to be rather severe, perhaps unduly so, if inflation is to be avoided in the face of a vigorous defense effort undertaken under conditions of full employment. It would not suffice to levy taxes equal in amount to the defense disbursements of the government. This would be adequate only if, under the influence of such taxation, the consumers would reduce their demand, and in suitable proportions, for commodities which absorb those resources which the government wants to utilize for defense. What was true in the case of increased voluntary savings may be true in the case of stepped-up taxes: people may economize on consumer items whose production does not absorb defense-essential resources. But even if this would be different, a tax effort of the magnitude required for financing a full-fledged defense program might affect production unfavorably. If taxation is very severe, economic incentives are weakened. This would not place a ceiling on the productive effort of those who are inspired by patriotism rather than by ordinary economic incentives. But even if their number should be considered substantial, it would be unjust to exploit their noble impulses by imposing upon them the principal burden of the defense. All these considerations add up to the conclusion that reliance on tax policies may not suffice for keeping inflation within

acceptable limits. Eventually, direct controls supplement and, to some extent, supplant policies of increased taxation.

Increased taxation may be made more palatable by promising the taxpayer a refund that will come due under more favorable circumstances, that is, at such a time when the need for defense presumably will have abated and consumer-goods production is forthcoming in larger volume.

ENCOURAGEMENT OF EXPANSION

Increased taxation, being likely to have unfavorable effects on production, may be accompanied by special measures designed to induce business to expand production and productive facilities. Subsidization in various forms will be designed to favor the defense sector of the economy. Sometimes subsidies are granted in the form of differentials to high-cost producers, an arrangement which may check the increase in the price of the product.

To encourage the construction of new productive facilities the government usually allows an accelerated amortization of such facilities for income tax purposes. That is, if the ordinary useful length of the life of the newly constructed asset were 15 years, the concern's taxable income per year could be reduced by one fifteenth of the cost of the asset. If now amortization is accelerated to, say, five years, the concern's tax bill during these five years will be much lower, the taxable income being reduced every year by one fifth of the cost of the asset. After the expiration of the amortization period, taxable income would be higher than it would be under ordinary amortization provisions. But possibly by then the usefulness of the asset has diminished, owing to changing conditions; and the income of the concern is reduced on this account. Or if by then the emergency is over, tax rates may have been lowered. If these possibilities materialize the granting of accelerated amortization will entail genuine savings in taxes. If they do not, accelerated amortization grants the taxpayer what, in effect, amounts to an interest-free loan from the public treasury. Either alternative, of course, is an attractive one and may be a powerful inducement to the expansion of productive facilities.

DIRECT CONTROLS

Functions of Direct Controls. Direct controls such as the allocation of productive resources and rationing of consumer goods have two principal functions. First, they are designed to distribute available supplies among the population more equitably than would be possible under the price system and in the face of the inflationary tendencies brought about by its

operation. Second, direct controls may be necessary to facilitate the defense effort in a more straightforward and efficient manner than would be possible if exclusive reliance were placed on the price system.

Under the price system, entrepreneurs are induced to shift production from less profitable lines to those which offer more attractive rewards. Under the price system the superior purchasing power with which the government can equip itself is capable, for defense purposes, of bidding away resources from those who would want to use them for nondefense purposes. But the price system is equipped primarily to bring about relatively small changes in production, and its mechanism is rather time-absorbing. Its usefulness will be strained under a vigorous defense effort, and it will be supplemented by government subsidies of various types designed to induce the expansion of activities of military importance. If swift changes are required on a large scale, as they well may be for purposes of defense, direct controls, more specifically the allocation of productive resources by government agencies, may have to replace the operations of the price system.

Price Control. Price control measures, fixing maximum prices for commodities and services, are generally the entering wedge for more stringent types of control. To be successful, measures of this type must cover a broad range of commodities and services; and apart from this, they call for supplementation by means of rationing and allocation.

If price control is highly selective, productive resources will leave the controlled sector and move into that part of the economy which is free from control. Output in the controlled sector thus tends to be starved, and the structure of production becomes distorted. If only consumer prices are controlled, production may be badly paralyzed and a black market may flourish. In order to avoid these contingencies the control must cover factor prices as well.

In order to prevent the discouragement of production in the defense sector by price control, the latter may be combined with the granting of cost-plus contracts for defense purposes. Under such contracts, however, there is little incentive to economize, especially when the "plus" or premium is a percentage of cost rather than a fixed amount. A famous joke is told of three businessmen meeting at lunch, each eager to pick up the check. The first says he is on an expense account. The second insists that the outlay will reduce his tax bill. The third wins out, because he is under a cost-plus contract and can actually make money by increasing his expenses.

If price control is enacted without supplementation by rationing, the controlled price, if set below the equilibrium price, will fail to equate demand and supply. At the controlled price, demand will exceed supply. Customers will have to form queues. Either those who come first will be served first, or the supply will be "rationed" by the seller in accordance with his personal preferences.

Rationing of Consumer Goods. In this situation, rationing by public authorities will have much to commend itself. The technique of rationing has made much headway during the two World Wars. Fundamental to all types of rationing is an inventory of available stocks and estimates of their adequate level and of the rate of production. Once these data have been ascertained the share available per consumer is calculated, either on a straight per capita basis or in a modified form which differentiates according to the special needs of certain groups of people—in the case of gasoline rationing, for example, the requirements of physicians. Coupons are then issued which must be presented whenever purchases of the rationed article are made. Where consumer preferences are fairly well-known in the mass and on the average, point-rationing can be introduced to allow some individual modification of purchases. A consumer is equipped, for example, with a hundred points, which together are valid, alternatively, for the purchase of ten eggs or two pounds of butter.

If the rationing system is highly selective, demand and productive resources will concentrate on the unrationed sector of the economy, causing expansion along lines that may compete with the defense effort. But in a less vigorous defense economy, which is not pervaded by shortages, the restriction of rationing to a few bottleneck commodities will not be accompanied by adverse consequences of the characterized variety.

Allocation of Productive Resources. The allocation of productive resources may become necessary either in conjunction with a fully developed system of price control and rationing or regardless of it. Allocation may again be applied along selective lines or universally. A full-fledged defense effort requires a universal system of allocation, but long before that time selective measures may be called for.

The control may assume the form of "priorities," compelling manufacturers to give preference to military purchasing contracts ahead of others. It may then be expanded to include more stringent forms of inventory control and total regulation of the use to which productive resources can be put. Controls of this sort are bound to limit the availability of goods for private investment if the latter competes with the defense effort. They can be used also for guiding such investment into desirable channels. A similar purpose is accomplished by the regulation of new issues of corporate securities, aiming at discouraging the expansion of business along undesirable lines.

In a fully developed defense economy, manpower is rarely excluded from the range of productive resources subject to government allocation and control. Workers are "frozen" in occupations considered essential, and they may be assigned to certain jobs. Often the government proclaims a general duty to work. Efforts are made to keep loss of labor time due to labor disputes to a minimum, and wage control is imposed to check inflationary pressure.

THE GOVERNMENT IN THE DEFENSE ECONOMY

The controls outlined in the preceding section go a long way to enhance the power of government. Public authorities do indeed assume a paramount role in the defense economy. The more vigorous the defense effort becomes, the greater is the need for centralized co-ordination, synchronization, and planning. Moreover the government must formulate an over-all mobilization plan which can take effect in the case of need and must hold in readiness stand-by controls.

Apart from the formulation of over-all plans and the imposition of controls, defense requires a number of specific policies, such as the encouragement of stand-by capacity, stock piling, industrial dispersion, and the promotion of research. In connection especially with stand-by capacity the importance of the time element in defense stands out.

The Element of Time. In defense, often time is of the essence. Adequate preparedness is the result of protracted efforts that frequently stretch over a number of years. As Sir Winston Churchill put it, a defense program, once formulated, will yield nothing in the first year and very little in the second. Somewhat more comes forth in the third year, and the fourth year produces a veritable flood.

The significance of the time element is aptly illustrated in the following remarks of the President's Air Policy Commission: "It takes four to seven years to develop a new plane from the engineering board to production. It takes longer than that to develop many of the weapons which will be used in any future war. No airplane was used by the United States in World War II which had not been designed before we entered the War. Only improvements were made after Pearl Harbor; there was no change in fundamental design in any plane which saw war service."[6]

This was the situation in World War II, which began in 1939 and ended in 1945, with the United States entering in 1941. Since then, the weapons of war have undergone profound changes, and a new war might be a matter of a few minutes' duration. This possibility has of course hugely intensified the importance of the time element and obliterated the dividing line between the defense economy and the war economy. Once war has broken out, there might be no time to build up a war economy.

The length of time required for sustained defense planning may call for the early placement of orders on which deliveries will be made over long periods of time. With respect to the more conventional types of weapons needed for peripheral wars, it may require stand-by capacity, which consists of productive facilities that, for the time being, are redundant but can be drawn into production on short notice.

The need for stand-by capacity is reduced when there are export

[6] President's Air Policy Commission, *Survival in the Air Age* (Washington, D.C.: U.S. Government Printing Office, 1948), p. 20.

industries that produce materials essential for defense in quantities exceeding domestic requirements. Germany's favorable machine tool position during World War II reflected in no small measure the utilization of capacities that before the war had supplied foreign markets.

In a somewhat different sense, stand-by capacity is also required in those industries where the ordinary civilian demand is only a very small fraction of wartime requirements. In the case of airplanes, for example, ordinary civilian demand is about 1 per cent of the wartime output—calculated in terms of airframe weight. In industries suffering from fluctations of demand as excessive as these, technologies can only be advanced and industrial know-how for mass production accumulated if there is some measure of protection against changes of momentous impact.

Stockpiling. Various materials, especially mineral products, are not available at home in quantities that would suffice for the support of a sustained war effort. These materials generally are referred to as strategic or critical. The position of the United States can be much improved by government-sponsored stockpiling programs aiming at the accumulation of substantial supplies. Building up the stockpile required annual outlays of close to $1 billion in 1953 and 1954. Suitable import policies, combined with policies of domestic production, had to be formulated in order to accumulate the desired amounts. However, changing technologies, resulting in changing requirements, as well as doubts about the duration of a new conflict have diminished stockpiling needs, and the annual expenses for additions now have fallen to $150 million. On the whole, the stockpile is considered adequate, and long-term supply contracts in the face of reduced requirements have created a situation where there is a surplus of certain materials, whose commercial disposal would seriously depress the respective markets.

Of the total stockpile, worth $16 billion, of which over $7 billion consists of agricultural products, some $4 billion are reported to be surplus. Its retention may possibly be justified by the consideration that, even if the duration of a new war may be a very short one, the resources may be useful for postwar reconstruction.

The number of commodities contained in the stockpile is very large, extending from such items as copper, aluminum, zinc, and nickel to opium, feathers, and castor oil. The upheavals in the newly constituted Republic of the Congo in 1960 caused concern among many people about the further flow of cobalt, of which this region is an important supplier. However, an adequate amount of this highly strategic commodity was reported to be in the stockpile as early as in 1958. Nevertheless, the government is under long-term contracts to buy more of it, at $2 a pound, although the market price has fallen to $1.50 a pound. A similar situation prevails with respect to a number of other commodities.

Control of Exports. Just as imports to our own shores may strengthen

our economy, so may imports to an enemy country add to its economic strength. In times of full-fledged warfare, control over exports tends to become very stringent, and restrictions are placed not only on the trading activities of a country's own nationals but also on the trade of third countries with the enemy.

Since the Korean conflict of the early 1950's, trade of the free world with the Soviet bloc has been a thorny problem. United States policy is controlled by the Export Control Act of 1949 and the Battle Act of 1951. This legislation places an embargo on the exportation of "strategic," or war materials, from the United States to the Soviet bloc and makes the exportation of other materials subject to strict regulation. The Battle Act further declares it to be the policy of the United States to supply no military, economic, or financial assistance to any country which fails to apply similar principles in its trade with the Soviet bloc.

Since the early 1950's United States trade with Communist China has been under much more stringent control than trade with the members of the Soviet bloc in Europe. In line with an embargo placed on the former country by the United Nations during the Korean conflict in 1951, United States trade with Communist China has been entirely prohibited. United States exports to the members of the Soviet bloc in Europe are limited to nonmilitary items, but the restrictions have been liberalized over the years and the range of items whose exportation is allowed has gradually increased.

On the whole, the members of the free world follow the United States trade policy vis-à-vis Soviet Russia and eastern Europe, but they have been unwilling to continue the embargo of Communist China. Many of them have recognized this country, and as their ties with South Korea, Formosa, and South Vietnam are not close ones, they do not consider themselves committed to a "political quarantine" of Communist China. Hence, they have discarded the so-called "China differential," and since 1957 have placed their trade with Communist China on the same footing as their trade with the other members of the Soviet bloc. The policies of the West and of Japan in these matters are co-ordinated by two standing committees with headquarters in Paris, the International Co-ordinating Committee—known as COCOM—which has jurisdiction over trade with the Soviet Union and her European satellites, and the China Committee—CHINCOM—for trade with Communist China. While the United States government has in no case formally invoked the Battle Act, it has expressed its apprehension about the resumption of trade with China, and in general has favored a policy of refusing the Soviet countries credit for periods longer than six months. In this case, too, the European countries have been ready to make greater concessions.

As the Chinese market has been opened to Britain, Japan, Germany, and other leading countries eager to trade with that country, United States exporters find themselves at a serious disadvantage. There would be no argu-

ment about the loss of potential trade if we could be sure that our trade policy, specifically the embargo against Communist China, has actually weakened the economic strength of the Soviet bloc. Some deny this and insist that our policies have made the satellites more dependent on Soviet Russia,[7] strengthened the ties between Soviet Russia and Communist China, and have contributed to making the whole Soviet bloc more self-sufficient. The restrictions on imports made the Russians aware of certain bottlenecks in their own production, gaps which they filled in due course. Eventually the whole Soviet world came to rely on Russia as a supplier of industrial equipment and of whole installations, and the whole system has become closely integrated as the result of the widespread adaptation to standardized Russian engineering designs.

Industrial Dispersion and Civil Defense. In view of the devastating effects of nuclear warfare, a policy of dispersing our highly concentrated industrial establishment might recommend itself. Some 70 per cent of the industrial capacity of the United States is located in 50 large metropolitan centers. The cost of a complete dispersal of these facilities was estimated at $300 billion in 1950. Thus far, public policy seems to aim primarily at guiding new facilities into the less exposed regions rather than at relocating existing facilities. The Civil Defense Administration, which has its headquarters in Battle Creek, Michigan, has employed chiefly the power of persuasion in its attempts to secure industrial dispersal.

According to a British study of 1956, six H-bombs would cover the whole surface of England if dropped in a row, and ten or twelve, regardless of where they fall, would leave little of England habitable.[8] In the United States, a hypothetical attack with 263 nuclear warheads was estimated in 1959 to cause the destruction of about half of all dwelling units, damaging them and causing them to be uninhabitable for extended periods of time. Radiation and fall-out would spread over wide areas of the United States.[9] The number of people that would perish as a result of a nuclear attack has been estimated in 1957 at from 75 million to 100 million. It is claimed that the number of casualties could be much reduced by evacuation and the construction of blast and fall-out shelters. A comprehensive program of this sort would require outlays of from $20 billion to $40 billion according to estimates prepared in 1957 and 1958.[10] Compared with this, civil and defense mobilization expenditures, which have ranged from $50 million to $75 million in recent years, seem entirely inadequate.

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[7] Address of Henry Ford II before the Convention of the National Automobile Dealers Association, San Francisco, January 28, 1957. See also "Strategic Trade Control: A Stimulus to Russia?" *Manchester Guardian Weekly*, July 22, 1954, p. 3.

[8] *Nuclear Weapons* (London: Her Majesty's Stationery Office, 1956).

[9] *Hearings* before a Subcommittee of the Joint Committee on Atomic Energy, June 22 to 27, 1959.

[10] *Hearings* before a Subcommittee of the House Government Operations Committee, February 5 and 13, 1957; *Report* of the same Committee released August 10, 1958.

THE ECONOMICS OF DISARMAMENT

To reduce the threat of nuclear warfare, the United States has for many years explored the possibilities of disarmament. Disarmament may involve the cessation of further testing of nuclear weapons, or it may go substantially beyond this specific objective and bring about a massive reduction of government spending for defense. With approximately 10 per cent of our gross national product expended for purposes of national security, disarmament would constitute difficult but tractable problems of economic adjustment.[11] These are illustrated by our past experience with fluctuations in defense spending, which, while not the sole cause of the recessions of the 1950's, nevertheless exerted an extremely significant influence in this respect.[12]

A reduction of defense expenditures would, first of all, set free resources no longer needed for military purposes. To the extent to which these resources are so highly specialized that there are only few alternative uses for them, as, for example, installations and personnel for the testing of nuclear weapons, their transfer to other employment will be difficult unless a new market for them develops in the field of arms control. But their case is an extreme one, and in general the opportunities for the "reconversion" of resources for nondefense uses are much better.

To utilize these opportunities, the reduction of government demand for defense production must be compensated by the expansion of consumption and investment along other lines. For this purpose, tax reductions—to stimulate private consumption and investment—and increased expenditures for foreign aid and domestic public consumption commend themselves, as do other policies designed to stimulate investment. The latter will require a policy of easy money and low interest rates, combined with a vigorous program of checking inflation by means of nonmonetary policies. Policies of hard money and high interest rates failed to prevent inflation during the 1950's, the causes of inflation not being exclusively monetary ones. By the same token, easy money and low interest rates need not be inflationary if effective restraints on wages and prices are fashioned in time.

When World War II came to an end, the economy of the United States faced a huge reconversion problem. At that time there were many who

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[11] See Gehard Colm, "Economic Implications of Disarmament," *Illinois Business Review*, Vol. XIV, No. 7 (July, 1957), pp. 6-8; Seymour Harris, "Can We Prosper Without Arms?" *New York Times Magazine*, November 8, 1959, pp. 18 ff. See also a special issue on "Arms Control" of *Daedalus*, Fall, 1960, a periodical published by the American Academy of Arts and Sciences, with contributions by Kenneth E. Boulding and Thomas C. Schelling.

[12] Joint Economic Committee, *Staff Report* on Employment, Growth and Price Levels, 86th Cong. 1st sess. (Washington, D.C.: U.S. Government Printing Office, 1960), p. 216.

predicted widespread unemployment as the result of the cessation of wartime spending by the government, but these predictions did not come true. They failed to come true because the wartime restrictions on production for civilian use—especially of durable consumer goods—had created a large backlog of pent-up demand. This demand became effective after the war, and an immediate postwar depression was avoided. In the situation in which the United States finds itself in the early 1960's, there is no similar backlog of pent-up demand for automobiles, washing machines, etc. If disarmament should occur, only a limited reliance could be placed on an expansion of private demand for consumer goods in response to tax reductions. Hence, it is necessary to combine tax reductions with the policies outlined in the preceding paragraph in order to check the threat of a depression which the Soviets hope would cripple the capitalist system.

SUMMARY

Expenditures for the military defense of the United States, though they are far below the peak reached during World War II, absorb percentages of the national income and of public expenditures that are considerably in excess of what was considered normal in prewar years.

The burden of a vigorous defense effort on the public weighs more heavily in periods of full employment than during depressions. In times of unemployment the real costs of defense approximate zero; during times of full employment the defense effort absorbs productive resources that would otherwise be employed for civilian purposes.

Defense production is derived from current output—the national income—as well as from the liquidation of accumulated assets—the national wealth. The relative proportions of these two components vary in different countries and during different periods of time.

If the defense effort takes place under full employment the expenditures entailed by it are inflationary. To minimize inflation, increased saving and taxation are called for. A vigorous defense program may eventually require direct controls, such as rationing, price control, and allocation of productive resources. Policies of this sort greatly enhance the power of government.

Specific public policies aim at the creation of stand-by capacity, at stockpiling, at industrial dispersal, and at the control of exports.

A disarmament program would call for policies designed to create an effective demand for the use of the resources set free for nonmilitary uses.

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In the light of the swift changes in the technique of modern war, the older works on war economics are no longer adequate, and new works that are comprehensive in scope and detached from the views of official sponsors are scarce. Among the older theoretical literature, which largely reflects the experi-

ences during World War I and II, these works stand out: A. C. Pigou, *The Political Economy of War*, rev. ed., London, Macmillan & Co., Ltd., 1940; Oxford Institute of Statistics, *Studies in War Economics*, New York, Macmillan Co., 1948; J. R. and U. K. Hicks and L. Rostas, *The Taxation of War Wealth*, Oxford, Clarendon Press, 1941; J. M. Keynes, *How to Pay for the War*, New York, Harcourt, Brace & Co., 1940.

More recent works include Charles J. Hitch and Roland N. McKean, *The Economics of Defense in the Nuclear Age*, Cambridge, Harvard University Press, 1960, a highly technical study by economists associated with the RAND Corporation; James R. Schlesinger, *The Political Economy of National Security*, New York, Frederick A. Praeger, Inc., 1960; Oskar Morgenstern, *The Question of National Defense*, New York, Random House, 1960. The latter work, by a distinguished economist, goes far beyond the economic aspects of the matter. Useful information may also be found in Klaus Knorr, *The War Potential of Nations*, Princeton, N.J., Princeton University Press, 1956; Percy W. Bidwell, *Raw Materials: A Study of American Policy*, New York, Harper & Bros. for Council on Foreign Relations, 1958. A brilliant critique of the German economic policy in World War II is by Burton H. Klein, *Germany's Preparation for War*, Cambridge, Harvard University Press, 1959.

STUDY QUESTIONS

1. What has been the impact of shifts in defense procurement on different industries and regions?
2. Why is it difficult to dispose of defense contracts by means of competitive bidding?
3. How can national wealth be utilized for defense?
4. What is the role of large and small business in defense?
5. What is a cost-plus contract?
6. What is the significance of the time element in defense production?
7. What is the present status of the United States stockpile of strategic materials?
8. What is the present status of industrial dispersal and civil defense in the United States?
9. What is the present status of export control in the United States?
10. What are the pros and cons of export control as a cold-war weapon?
11. How would disarmament affect the United States economy?
12. What is meant by "stand-by capacity" and what by "bottlenecks"?
13. What is the function of direct controls in a defense economy?
14. Why is the operation of the price system supplemented public policies under conditions of intensified defense?
15. What is meant by "conversion" and "reconversion"?
16. Why is it necessary to raise the rate of saving under conditions of intensified defense?
17. Can the burden of defense be transferred to future generations?
18. What types of "marginal workers" can be drawn into the defense economy?
19. What are the real costs of defense under conditions of unemployment?
20. Why is it so difficult for the citizen to appraise the adequacy of a defense effort under modern conditions?

Chapter 20 *THE SOVIET ECONOMIC CHALLENGE*

The retaliatory power of the United States must be kept strong to prevent the use of Soviet military power in a manner that would result in a general war. But the Soviet threat is not exclusively a military one. In addition, the Soviets pose an economic challenge by threatening to outproduce us and by their economic penetration of foreign countries. Indeed, if they want to make this challenge effective, they must concentrate their efforts on the economic development of their country rather than pursue policies that invite the risk of a general war with its devastating consequences.

If a friendly country were to outproduce us, this need not constitute a menace to our security and peace. If other people want to work harder to have a third or fourth car in their garage, this does not need to disturb our slumber nor does it need to invite imitation. The Soviet goal of outproducing us does constitute a menace because of the inherently aggressive and expansionist character of the Soviet system. The Soviets want to demonstrate to the uncommitted parts of the world that their economic system is a superior one. They want to weaken us, isolate us, and eventually subvert us.

SOVIET ECONOMIC STRENGTH

The economic challenge of the Soviets is made on the basis of an economic strength that was vastly inferior to that of the United States only a few decades ago. It is still inferior to ours, but as it has been growing very rapidly in recent years, the high rate of growth cuts into our lead.

Soviet claims often are grossly exaggerated and the Soviets do not make available detailed and reliable statistical information. However, the director of the United States Central Intelligence Agency, from whose various state-

ments the data given in this and the following paragraphs have been drawn, declares it as undisputed among experts that Soviet Russia has become second among the world's industrial powers within the span of three decades. As to the rate of industrial growth attained by the Soviets during the 1950's, he notes substantial agreement on a range of estimates varying from 9 to 10.5 per cent a year. "Virtually all Western measurements," he says, "point to this conclusion—that Soviet industrial production has been growing at a rate at least twice as rapidly as that of the United States since 1950." As to the rate of growth of the Soviet gross national product in constant prices, estimates range from 6 per cent to 9 per cent for the annual average from 1950 to 1958, with that of the Central Intelligence Agency holding middle ground at about 7 per cent. The conclusion again is that "Soviet gross national product has also been growing twice as rapidly as that of the United States over the past eight years."[1]

As regards the immediate future, the Central Intelligence Agency estimates that there will be a moderate slowdown of the Soviet growth rates during the early 1960's, because agricultural production will rise more slowly and for other reasons. Nevertheless the estimate is an average annual growth of 6 per cent per year through 1965. How does this compare with the United States? "Even assuming that the United States gross national product for the years 1956 through 1965 can be increased to an annual growth rate of from 3.5 to 4 per cent, our best postwar growth rate, then Soviet gross national product will be slightly more than 50 per cent of ours by 1965, and about 55 per cent by 1970. I would emphasize, however," the director of the Central Intelligence Agency continues, "that we must increase our recent rate of growth, which has been less than 3 per cent over the last six or seven years, to hold the Soviets to such limited relative gains." In the industrial sector, the same expert points out, "the race will be closer. We believe it likely that the Soviets will continue to grow industrially by 8 or 9 per cent a year. If they do so, they could attain by 1970 about 60 per cent of our industrial production, provided our industrial growth rate averages 4½ per cent per annum. Any decrease in this rate would, of course, narrow the gap."[2]

A growth rate of 6 per cent means that the quantity to which it relates will double in less than twelve years. At a growth rate of 3 per cent, this will take approximately twice as long.

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1 "Comparisons of the United States and Soviet Economies," *Hearings* before the Subcommittee on Economic Statistics of the Joint Economic Committee, 86th Cong., 1st sess. (Washington, D.C.: U.S. Government Printing Office, 1960), p. 5 ff.

2 *Ibid.* See also address by Allen W. Dulles, director of the Central Intelligence Agency, before the United States Chamber of Commerce, April 28, 1958, and his address before the Edison Electric Institute, April 8, 1959. For other estimates released by the Central Intelligence Agency, see *New York Times*, June 23, 1960.

The index of United States industrial production was 100 in 1957, 93 in 1958, and 105 in 1959. For later years the reader may consult the current issue of the *Federal Reserve Bulletin*.

How long it would take the Soviets to match our own industrial production, is a matter of conjecture, depending, as it does, upon the future course of the respective annual average rates of growth. Assuming for the present a Soviet industrial production of 45 per cent of that of the United States, under very unfavorable conditions, with a United States rate of growth of 2 per cent and a Soviet one of 9 per cent, it would take the U.S.S.R. only fourteen years to catch up with us. If, on the other hand, the United States growth rate of industrial production is raised to 4 per cent and the Russian reduced to 7 per cent, Soviet industrial production would be equal to our own after the passage of 32 years.[3] All such projections, while mathematically correct, point of course only to possibilities, but these are disturbing enough.

In the Soviet production, that of heavy industrial goods and weapons is given relatively much greater emphasis than in our own. Their military production is reported to be about equal to our own, out of half as large a gross national product. Correspondingly, consumer goods production receives a much lesser share of the total, and Soviet real wages may be about a quarter of what they are in the United States (see Fig. 57). Housing conditions are especially poor. Rapid economic growth has, however, facilitated an improvement of the very low living standards, and in 1959 it was anticipated that they would continue to increase by about one third in the next seven years. The same factor, rapid economic growth, would also make it possible to raise military spending by over 50 per cent over this period without increasing its relative burden. A disarmament program, on the other hand, would facilitate a very substantial improvement of living standards.

In 1958, the U.S.S.R. produced one automobile for every fifty in the United States, but its output of machine tools was four times that of the United States. For a few other industrial goods, Soviet production figures for 1950 and 1958 as well as production goals for 1965 are shown here and compared with 1958 United States production:[4]

	U.S., 1958	U.S.S.R.		
		1950	1958	1965
Steel, millions of metric tons	78	27	55	86–91
Electricity, billions of kw. hrs.	724	91	233	500–520
Oil, millions of metric tons	330	38	113	230–240
Cement, millions of metric tons	52	10	33	78
Natural gas, billion cubic meters	323	6	30	150

[3] Robert W. Campbell, *Soviet Economic Power* (Boston: Houghton, Mifflin Co., 1960), p. 195.

[4] Alec Nove, *Communist Economic Strategy: Soviet Growth and Capabilities* (Washington, D.C.: National Planning Association, 1959), p. 68, and *Statistical Abstract of the United States, 1959, passim.*

Production in the United States was in 1958 below capacity in many lines of industrial activities because of recession.

WORKTIME REQUIRED TO BUY SELECTED COMMODITIES.
MOSCOW AS A PER CENT OF NEW YORK CITY, 1959

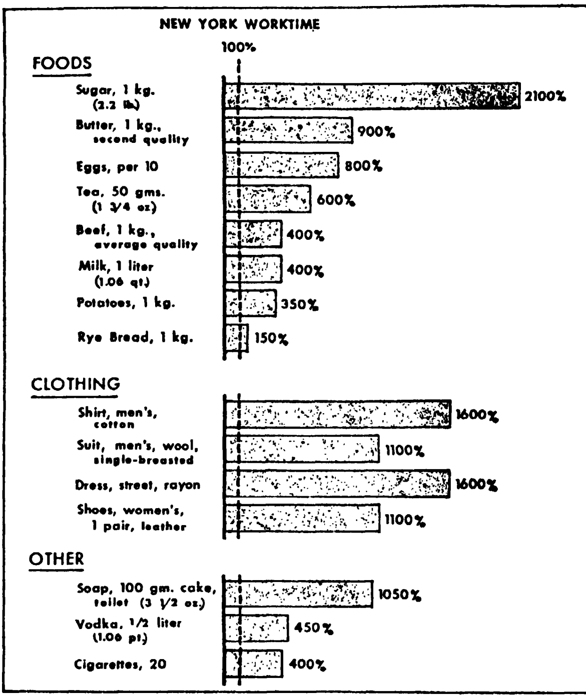

FIG. 57. Low real wages and consumption levels in the Soviet Union are reflected in the comparisons, made in this chart, between the worktime required to buy commodities in New York and Moscow. As a rule, it takes the Soviet worker many times the amount of work an American would have to do to pay for basic articles of consumption. From *Monthly Labor Review*, April, 1960, p. 361.

DETERMINANTS OF SOVIET ECONOMIC GROWTH

If the rate of Soviet economic growth is so high, we will want to know the factors which account for this. In the following, eight such factors will be discussed.

Large Amount of Investment. Unlike the American economy, the Soviet economy is not consumer-oriented. Instead, a large share of the output, 30 per cent compared with 17 to 20 per cent in the United States, goes into gross investment. In fact, Soviet investment in industry planned for 1959 was about equal to United States industrial investment in 1957, our

peak year.[5] With current consumption depressed, a relatively large part of the Soviet economic effort is devoted to the construction of capital, to raise future production. It is possible to do this in Russia because it is not the effective demand of the consumers that decides about the allocation of productive resources but the production plans of the men in power, made in accordance with the purposes of national policy. A case in point is the refusal of these men to allow a sizable amount of resources to go into the production of automobiles, and with motor transportation dwarfed by other methods of transportation, not many resources go into highway construction either.

As investments are made in response to the commands of a national plan, high interest rates do not deter those whose yield accrues over long periods of time. Interest charges are used, however, as bookkeeping item in cost accounting, representing a charge for the use of credit facilities which the state enterprise will pay out of its surplus. Interest rates are low, from 1 to 3 per cent, depending upon the type of transaction, and designed to provide the lending institutions with revenue and to stimulate saving and the proper use and timely return of borrowed funds. They are not designed to provide a mechanism for the allocation of productive resources, which is handled by direct planning. Presumably, if a state enterprise fails to earn an interest charge, the authorities will either raise the price of its output, or lower the price of its input, or fire the manager.

Economies of Scale. With a large population and a huge territory, the U.S.S.R. is in the position to make the most of the economies of the scale of the size of the plant, and as industry has developed, increasing benefits are derived from external economies. The U.S.S.R. has many large installations, and indeed its earlier plans were often characterized by what the Soviets themselves called "gigantomania," the construction of facilities that were so big that raw materials and products had to travel over unduly large distances. Since that time the improvements of the transportation system may have increased the optimum size of the plant.

Small Share of Services. As has been noted (p. 39), the advanced economies of the West have passed through an evolutionary process which has de-emphasized first the relative role of primary production in agriculture and mining while emphasizing that of manufacture. In a second stage, in which they now find themselves, secondary production in manufacturing gives way to tertiary production of services. The Soviet economy still is preponderantly one that produces physical goods rather than services, although white-collar employment is making its inroads there too. It is especially in connection with the production of physical goods that there are widespread opportunities for the use of capital, and this, in turn, is instrumental in raising productivity. A comparison of the Soviet and United States economies in 1955 shows that 48 per cent of our national income

[5] Address by Allen W. Dulles, April 8, 1959, as cited before.

originates in services and trade, compared with 31 per cent in the U.S.S.R.[6]

Large Reservoir of Farm Labor. The same comparison indicates that no less than 27 per cent of the Soviet national income originates in agriculture, compared with 5 per cent in the United States. This reflects the relative inefficiency of Soviet agriculture, which is mirrored also by the huge proportion of their people dependent on agricultural occupations, 44 per cent of the total population in 1955 compared with 13.5 per cent in the United States.[7] There are, thus, huge opportunities for improving agricultural productivity, which, if utilized, stimulate the rate of growth, and free labor for transfer to industrial pursuits.

High Rates of Labor Participation. As Soviet Russia is plentifully endowed with raw materials, the limiting factors in economic expansion are capital and labor. The possibility of drawing on a large reservoir of farm labor is, therefore, of considerable importance.[8] This is especially true during the early 1960's, when the entry of newcomers into the labor force is depressed by the low wartime birth rate. In part this has been offset by putting students to work at an earlier age and by postponing until 1965 or later a significant reduction of working hours. But, in any event, Soviet labor participation rates are very high. As of 1955, some 76 per cent of the Soviet population were reported to be in the labor force, compared with 58 per cent in the United States. Labor participation rates are substantially higher both for men and women, 95 per cent of the former and 63 per cent of the latter, than in the United States, where the respective figures are 82 and 35 per cent, all for 1955. Estimates for more recent years show a slight but not significant decline of the Russian labor participation rates.[9]

Modern Equipment and Technology. As so much of the industrial equipment is new, it is likely also to be modern and more highly productive than equipment that has been installed many years ago.[10] A related advantage is the special type of external economies which Soviet Russia derives from the fact that only recently she raised herself from great backwardness and joined the ranks of the industrial powers. By doing this, she has been able to reap uncounted benefits from the industrial legacy of the West, the storehouse of scientific achievement and technical know-how to whose

[6] "Comparisons of the United States and Soviet Economies," Joint Economic Committee, 86th Cong., 1st sess. (Washington, D.C.: U.S. Government Printing Office, 1959), Part II, p. 383.

[7] *Ibid.*, Part I, p. 89.

[8] The transfer of farm labor into industry is apparently not always easily achieved, and frictional and technological unemployment pose problems for the authorities in this connection as well as a consequence of automation and the increasing mechanization of industry. See *New York Times*, August 15, 1960.

[9] "Comparisons of the United States and Soviet Economies, *op. cit.*, Part I, p. 79.

[10] The degree of mechanization varies in one factory as well as in industry. Mechanization is by no means complete. As of August 1, 1959, 47 per cent of labor in industry was reported to be performing manual jobs. See report by A. Kostousov in *Pravda*, July 15, 1960.

erstwhile accumulation she has contributed relatively little—notwithstanding her claims to the contrary. If the U.S.S.R. presently produces nylon hose, this is made possible by the many million dollars of research money which the Du Pont Company sank into this venture before it came to fruition, and this illustration could be paralleled by countless others. In a way, as Veblen once said in a similar connection, the West has to pay the penalty for having been in the lead.

Emphasis on Science and Education. Of the advantages which the Soviets derive from the industrial legacy of the West they make the most, and they have come to rival the leadership of the West in science and education.[11] Within a few decades they have stamped out illiteracy. While the proportion of their young people who go on to high schools and colleges is much smaller than in the United States, the curriculum gives heavy emphasis to mathematics and natural science. On the college level, the absolute number of those who graduate in a year is higher than in the United States in a few fields, in education, for example, and, still more pronouncedly, in engineering, where the ratio was about three to one in 1960. Some 15 per cent of the engineering graduates have received instruction in correspondence and extension courses, of which wide use is made in the Russian educational system. Not all engineering graduates become engineers in the narrow sense of the term. Many go into management, administration, and politics. From the point of view of pay and prestige, the position of teachers and scientists may be an attractive one, but they have, of course, to follow the party line, which calls for a total commitment, even if this requires them to embrace the discredited doctrines of a Lysenko. Within these limitations, plentiful resources are devoted to research.

Full Employment of Resources. As the Soviet economy is one that is centrally planned, there are bound to be shortages, surpluses, and other manifestations of waste, lack of synchronization, and misdirected production. But the plan admits of no unemployment, and the Soviet output has increased in every year since 1946. Full employment of resources is assured in still another sense, because many practices labor takes for granted in a free society—strikes, featherbedding, slowdown, production-restricting work rules—would be considered treasonable sabotage in the U.S.S.R. As was noted earlier (p. 248), the Soviet wage system is organized primarily on an incentive basis, and to speed up production is not only remunerative in terms of financial rewards but considered a duty to society which a worker cannot neglect with impunity.

Future Prospects. These factors, then, provide some measure of explanation of the high rate of growth of the Soviet economy. Of course, the trend may be broken. Communist China, with which Soviet Russia shares

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[11] "Comparison of United States and U.S.S.R. Science Education," *Hearings* before the Subcommittee of the House Appropriations Committee, 86th Cong., 2d sess. (Washington, D.C.: U.S. Government Printing Office, 1960).

a border of some 4,000 miles, might become a source of disturbance. Or internal strife might develop, with resulting detriment to the machinery of planning. Moreover, some of the determinants of Soviet economic growth which we have discussed here are of such a nature that the passage of time might deprive them of their strength. The reservoir of farm labor is a case in point, and so are some of those factors which reflect a rapid rise from economic backwardness. An evolutionary process might ensue, bringing about some measure of Westernization of the Soviet society. As the people of the U.S.S.R. are allowed a taste of improved consumption, their appetite for consumer goods might grow, making the Soviet economy more consumer-oriented and diminishing the share of investment. As education spreads and more windows are opened to the West, critical habits of thought may be generated, filling the Russian people with the desire for a better life and making them express this desire more articulately. As an industrial civilization arises, it may carry to the top people with a new system of values who will liberalize the political life of Soviet Russia.

While we may hope for such and similar prospects, it would be foolhardy to count on them. Instead, if we are willing to hold our own and give a good account of our accomplishments to the rest of the world, we must meet the economic challenge of the Soviets by mobilizing our own resources for economic growth—by accelerating investment in physical capital as well as in the health and education of our people, by eliminating pockets of unemployment and by making our economy more recession-proof. If we fail, "it will only be because of our complacency and because they have devoted a far greater share of their power, skill, and resources to our destruction than we have been willing to dedicate to our own preservation."[12] We must find a national purpose that goes beyond the mere body comforts, and one that gives new strength to our confidence in our own way of life. The Russians are no supermen, and their growth rates have been matched by countries as diverse in economic structure and organization as Japan and Germany. Not only their growth rates but also those of many countries in western Europe are higher than ours. Indeed, in all major countries except the United States and Canada the real gross national product has increased in every single year during the 1950's[13]—which again goes to show that Russia is by no means the only country that is able to avoid recessions.

[12] Address of Allen W. Dulles, April 8, 1959, *op. cit.* For other pertinent remarks in a similar vein see Barbara Ward, "Now the Challenge of an Economic Sputnik," *New York Times Magazine*, February 8, 1959; Hans J. Morgenthau, "The Last Years of Our Greatness?" *New Republic*, December, 29, 1958. See also John K. Jessup and Others, *The National Purpose* (New York: Holt, Rinehart, and Winston, 1960), especially Walter Lippmann's contribution.

[13] Raymond W. Goldsmith, in National Industrial Conference Board, *Prerequisites for Economic Growth* (New York, 1959), p. 56.

THE RISE OF COMMUNIST CHINA

As the Soviet Union gathered strength, it lent considerable economic support to the Communist regime of China, the largest country of the world in terms of population—over 660 million in 1959—and the third-largest in terms of territory. There the Communists came to power in the late 1940's, when they established a Soviet-type government. With a population twelve times that of Britain, and growing at a redoubtable rate, China now bids fair to become the world's third-largest industrial establishment during the next dozen or so years. Even if the exaggerations of her propaganda are discounted, the upsurge of China's economic power is a troubling spectacle of unforeseeable consequences. Her economy grows at a rate that is a multiple of the Russian. For 1959, for example, she claims an increase in agricultural and industrial production of 31 per cent over the preceding year. This compares with the Russian claim of an 8 per cent rise of the national income in 1959. For 1960 the Chinese plan a 23 per cent increase in agricultural and industrial production. In the past, such figures have at times been revised downward, and reverses, especially in farm production, have occurred. While the rate of growth is very high, it also is uneven, owing largely to the continued prominence of the agricultural establishment and the difficulties of predicting the size of the harvest. It is expected by United States government analysts that by 1962 Chinese steel production will be at the annual rate of 25 million metric tons, an amount exceeded in 1959 only by the United States, Soviet Russia, and West Germany. Some time after 1962 China is expected to have the capacities for the production of nuclear weapons.[14] She reportedly has become the world's largest wheat producer—as she was, next to Russia, in the 1930's—and she produces more rice than the rest of the world together.

Soviet support of the Chinese industrialization drive has assumed many forms. According to estimates prepared by the National Planning Association, loans and credits granted by Soviet Russia to China from 1950 to 1957 amounted to the equivalent of $430 million. The Soviet Union and other countries in the Soviet orbit have installed complete factories in China, have trained Chinese technicians and dispatched their own experts to China. China, which had been the Soviet Union's most important trading partner in earlier years, assumed this role again in 1959. This followed upon a short interim during which Soviet trade with East Germany exceeded that with China. In 1959, Soviet exports and those of her satellites to China amounted to the equivalent of $1.5 billion. The period of aid has come to an end, and trade might come to the fore. There is a continued United States embargo

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[14] *New York Times*, April 24, 1960. See also Harry Schwartz, "China Grows Faster Than Russia," *New York Times*, January 31, 1960.

on trade with China (p. 518), but other countries outside of the Soviet bloc have ceased to follow our lead in this respect. Western Germany is China's most important customer in Europe, importing from China oil seeds and oils, food products, furs, minerals, silk, and chemical raw materials. In turn, Western Germany supplies China with iron and steel products, machinery, electrical and communications equipment, optical and other precision products, chemical products, textiles, paper, and synthetic fibers. In 1959, continental western Europe exported to China goods valued at $325 million, and took imports less than half this amount. Exports of the sterling area were $211 million, imports $340 million.

The role of trade and aid in economic growth is dwarfed, however, by the immense sacrifices which the Chinese rulers have imposed upon their people, sacrifices that are immeasurably greater than those required in Russia. First in the country, and later, with considerable difficulty, also in the cities the Chinese have organized "communes," which have been called by an Indian social scientist "the most extreme form of communized society known."[15] The communes are groups of villagers, neighborhood residents, or industrial workers in which all phases of the life of the members are regimented and collectivized. The members are under relentless pressure to fulfill their quota of work. They are fed in common mess halls, the children brought up by the community, and the women put to work. This type of organization facilitates the closest supervision of individual life in a society in which "leisure, privacy, and solitude have become dreadful vices."[16] It secures economics in the consumption of food, and as it has abolished the home, it makes possible the absorption of women by outside work. There is no escape from the commune since it has become the common mode of life in the country.

The commune has been compared with a zoo, with the only difference that the inmates are compelled to work. As nightmarish and hopeless as the institution may seem to Western eyes, the spirit of man is indomitable everywhere, and some measure of liberalization can be expected with the spread of education and an industrial civilization. To quell discontent, concessions have already been made to maintain some semblance of family life.

THE SOVIET BLOC

The U.S.S.R., China, and the satellites of the two leaders of the Soviet bloc each have planned economies under which the allocation of productive resources takes place in response to the commands of the authorities. There are differences in the application of the principles of planning ob-

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[15] Sripati Chandrasekhar, "Mao's War with the Chinese Family," *New York Times Magazine*, May 17, 1959, p. 71.

[16] *Ibid.*, p. 73.

served in the various countries and in the machinery of its execution, which are as far apart as are China and Poland on the map of the world. The details of the plans and their diversity are matters that can not be explored within the confines of this chapter.

But while each of the countries has its own plan, a superplan that would co-ordinate the various national plans exists as yet only in an embryonic stage. To be sure there is an organization that might in time evolve into a superplanning agency, but to this date it has exercised more limited functions. This agency is the Council of Mutual Economic Aid, known in the West as Comecon,[17] which was formed in 1949 in answer to the American Marshall Plan, with Soviet Russia and her European satellites as members.[18] As Soviet Russia had little intention to provide her satellites with economic aid but rather wanted to exploit their economies, the organization soon became defunct and was not revived until the mid-fifties.

By that time it had become apparent that the independent pursuit of national plans by the various countries of eastern Europe exposed their economies to great strain. With each striving to become a more or less self-sufficient industrial power, investment soon became an unbearable burden and shortages developed, followed by unrest in a number of countries. In the words of Mr. Deutscher, the Soviets then by degrees came to rediscover Adam Smith and his international division of labor. Comecon, which had been supplemented by the admission of China and other Asian communist countries as observers, gradually became an instrument to promote specialization among the members of the Communist bloc and to open up channels of trade between them that would facilitate the construction of specialized industries and the distribution of their products. While Soviet Russia and China are to attain full diversification, the smaller countries are to concentrate their efforts along narrower lines, with Hungary developing her aluminum industry, Eastern Germany precision instruments and electrical equipment, and so forth. As these plans come to fruition, the economic interdependence of the members of the Soviet bloc is bound to become more and more pronounced and the chance for dislodging the economies of eastern Europe from the tentacles of Soviet Russia is correspondingly weakened.[19]

Comecon has only the consultative powers of a committee and what it decides can presumably be vetoed by any member government. Nevertheless, the organization has been able to aid in the development of a number

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17 The Council is known as Cema in the East.

18 Isaac Deutscher, "From Stalin to Adam Smith," and "Communism's Common Market," *New Statesman,* July 4 and 11, 1959, pp. 7 f. and pp. 37 f., respectively. A somewhat shorter version was published under the title "The Soviet Economic Commonwealth" in *Reporter,* July 9, 1959, pp. 9–13. See also "Comecon Progress Report," *Economist,* May 16, 1959, p. 639 f.; "Skoda and the Uncommon Red Market," *Fortune,* June, 1960, pp. 97–103.

19 "Economic Co-existence," *Economist,* January 9, 1960, pp. 87–89.

of important projects such as interconnected power grids, common transmission lines for power, power exchanges, nuclear power stations, and, most important, the construction of pipelines to transport petroleum and natural gas. A pipeline for natural gas, which was constructed in 1959, connects the Rumanian oil fields with the sites of new steel mills in Hungary. Another pipeline is under construction to carry natural gas from the Urals to most of the countries of eastern Europe. The major project is a pipeline for oil, nearly 2,800 miles long, which will extend from the Volga region to eastern Europe and carry an annual throughput of oil estimated at from 20 to 25 million tons. Its eastern end will be divided, with a southern branch bringing oil to Czechoslovakia and Hungary and the northern one running across Poland and Eastern Germany to feed refineries and petrochemical installations.[20]

The Sino-Soviet bloc's share in world exports was about 13 per cent in 1959, about half the percentage of the bloc's contribution to the world's industrial production during that year.[21] Approximately three fourths of the bloc's trade is transacted among its members, usually in the form of bilateral barter agreements with a clearing for the respective debts. Thus, the European satellites do a corresponding share of their trade with each other and with the Soviet Union, also with China. For many individual commodities, especially key raw materials and foodstuffs, the proportion in which Soviet exports to the satellites stand to domestic consumption in these countries is a very high one, reaching, for example, a reported 99 per cent of Czechoslovakia's crude oil and 65 per cent of her wheat. If shipments such as these were to be stopped, disaster would overtake the importing country, whose economy is bound to that of the Russian masters. Studies of earlier periods indicate that the terms on which Soviet Russia trades with her satellites are unfavorable to these. It was found that they pay relatively high prices for their imports and receive relatively low ones for their exports. It is said, however, that the earlier pattern of exploitation has been alleviated in recent years, possibly to prevent a repetition of the indigenous upheavals against the Soviets which occurred during the second half of the 1950's in a number of the satellite countries.[22]

Just as the communists have rediscovered Adam Smith and the principle of the international division of labor, so they might gradually come to see the advantages of multilateral trade. In a planned economy, bilateral trade

[20] "Soviet Oil Flows West," *Economist*, June 18, 1960, p. 1217.

[21] The Sino-Soviet bloc's share in the world's industrial production was estimated at 25 per cent by Mr. Dulles. *Hearings*, *op. cit.*, p. 11. The Soviets claim that the share is 30 per cent.

[22] The exploitation of the satellites has been carefully investigated by Horst Mendershausen, "Terms of Trade between the Soviet Union and Smaller Communist Countries, 1955–57," *Review of Economics and Statistics*, May, 1959, pp. 106–18. As regards the gradual alleviation, see U.S. Department of State, *The Sino-Soviet Economic Offensive in the Less Developed Countries* (Washington, D.C.: U.S. Government Printing Office, 1958).

has been preferred by the bureaucracy because it makes its task so much easier. Bilateralism which has been practiced by the members of the Soviet bloc for long, forces a country to purchase goods from its own customer and prevents it from selling where it is dear and buying where it is cheap. In 1957 the U.S.S.R. and the European members of the Soviet bloc formed a multilateral clearing union, an arrangement under which one country can pay its debts to a second with what a third owes to it. In 1959 the state banks of all the members of the Soviet bloc, European and Asian ones, made an agreement providing for the convertibility of their national currencies within the bloc. This does not mean, however, that the communist countries will settle all their mutual obligations by payments of money. They have become habituated to barter deals and bilateral agreements, and in a number of instances debts incurred for shipments of capital goods are settled by the shipment of products turned out in the facilities constructed with the help of the imported capital goods.

SOVIET TRADE DRIVES

Bilateral Trade. It is not sure at all whether the Soviets really care to relinquish barter deals since these are highly effective devices to gain a strangle hold over a weaker trading partner. Nazi Germany used this technique with much success during the 1930's when markets were badly depressed and raw-materials producing countries had great difficulties in disposing of their goods. Germany then bought huge quantities of such goods, at times the entire harvest of a country, turning the latter into an involuntary creditor who had to accept payment in the form of such goods as Germany was willing to send.[23]

It is, thus, not only the export dependency of the weaker partner to the barter arrangement but his import dependency as well that may cause him to become a captive of the stronger one. The latter then may press for shifts in production away from competitive products and into goods for which he has special needs, increasing further the dependence of the captive partner. On the next stage of the game, the dominant partner invests funds to finance the establishment of industries in the dependent country for the processing of the new products. All these activities bind the captive nation more closely to the exploiting one. The change in the structure of production in the dependent country creates vested interests in the new arrangements and the support by these interests of closer political ties between the two countries in the end opens the door to political infiltration. Thus, the barter device may become a dangerous instrument to subvert uncommitted countries, especially raw-materials producing ones which are plagued by problems of overproduction. While the barter device lends

[23] Henry W. Spiegel, *The Economics of Total War* (New York: D. Appleton-Century Co., 1942), pp. 306 f.

itself to sinister purposes, it goes without saying that it does not need to be used in this manner. During the stringency of the early postwar period, virtually all trade outside of the dollar and sterling countries was transacted on a bilateral basis.

A careful study has revealed that in 1957 there were approximately 240 bilateral trade or payments agreements in operation between free world and Sino-Soviet bloc countries. As of 1955, trade under such agreements constituted about 71 per cent of the total trade between these partners. These agreements have been used to make the most of the superior bargaining power of state trading monopolies vis-à-vis their weaker partners. At times they have been turned into instruments of political pressure, such as in the case of Soviet purchases of fish from Iceland, where the Soviets offered an agreement when the country had a Communist cabinet officer, refused renewal when the officer was ousted, and renegotiated an agreement when the government was joined again by a Communist.[24]

A number of other instances could be cited to document the use of trade as political weapon by the Soviet bloc. When, in 1948, Marshall Tito of Yugoslavia broke with Moscow, the Soviet bloc responded with a complete economic blockade of Yugoslavia, stopping all trade. Ten years later, when Yugoslavia was again under fire because of alleged ideological heresies, Soviet Russia threatened to postpone for five years trade credits amounting to $285 million which previously had been promised. In a similar manner, China in 1959 refused to resume her informal trade with Japan unless the latter proved to be more pliant in her politics, and "made it known to Japan again that politics and economy were one and inseparable."[25]

The Soviet Bid for Trade. Trade with the Soviet Union is only slightly above 1 per cent of the free world's foreign trade; trade with the entire Chinese-Soviet group is about 3.5 per cent. Low as these over-all estimates may seem, for a number of individual countries trade with the Soviet bloc is of considerable importance. This is true, for example, in Europe of Austria, Finland, Iceland, Greece, Turkey, and Yugoslavia, and of an increasing number of underdeveloped countries in the rest of the world. The position of these will be discussed later.

While the relaxation of United States export control (see p. 538) has been accompanied by an increase in East-West trade, the figures given in the preceding paragraph show that altogether such trade is still rather small. There are a number of inherent difficulties which, apart from political considerations, place a ceiling on this trade. First of all, the planned economies of the Soviet bloc, when they trade among each other, are likely to arrange for long-term deliveries at fixed prices. Such arrangements are pre-

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[24] Raymond F. Mikesell and Jack N. Behrman, *Financing Free World Trade with the Sino-Soviet Bloc* (Princeton, N.J.: Princeton University, International Finance Section, 1958), pp. 26–29.

[25] *New York Times*, March 17, 1959.

ferred by the planners because they want to integrate exports and imports with their national policies. They are in a position to make such arrangements because trade is carried on by state trading bodies, instrumentalities of the various governments. In East-West trade, the Western partner is no trading body but a multiplicity of private firms. A trade agreement concluded by their government creates for them opportunities to trade which they may utilize or not. Such private firms have to operate within the limits established by the market, and they may not be in the position to agree to long-term deliveries at fixed prices.

By the same token a free government cannot readily give assurance that a certain quantity of imports will be taken by the country it represents. It can undertake to admit such imports, but whether they will actually be purchased again depends upon the decisions of private concerns over which the government has no control. Thus, when trade agreements are concluded between the East and the West, the Western diplomats often call in spokesmen for the various industries of their country to assist them in the determination of the types and quantities of goods that are to be imported. They hope that such assistance will increase the likelihood that there will be a ready market for the scheduled imports in their country. The communist partner to the trade agreement has no such problems because he merely assigns the imports to the various state enterprises, or, if they are consumer goods, he can unload them on the state stores.

The Soviet Union has repeatedly made bids for increased trade with the free world, and it has coupled these with requests for credit. Having itself extended credit to some countries and apparently purchasing insurance, shipping, and other services in excess of sales of similar items, Soviet Russia balances her international payments by means of sales of gold amounting to over $200 million a year from 1957 to 1959 and smaller sums in earlier years. The foreign currencies purchased with the gold are made available also to other members of the Soviet bloc which are in need of these, and, in general, the proceeds from the gold sales provide a means of financing the activities of international communism.

The Soviet stock of monetary gold is presumably large and estimates range all the way from $4 to $10 billion.[26] However, for reasons of their own, the Soviets try to obtain goods on credit from the United States, western Europe, and wherever else they think they may have a chance. They are refused credit in the United States, and United States trade with Soviet Russia has remained very small, relative at least to the total foreign trade of the United States. Imports from Soviet Russia were $28 million in 1959, more than they had ever been since 1950 but less than one fifth of 1 per cent of total United States commodity imports. Exports to

[26] For a discussion of the problems posed by the Soviet gold stock, see Oscar L. Altman, "Russian Gold and the Ruble," International Monetary Fund, *Staff Papers*, April, 1960.

Soviet Russia were $7.6 million in 1959, more than in any year since 1948, but again they constituted less than one twentieth of 1 per cent of the total commodity exports of the United States.

Exports in the years ahead are likely to rise further because among the items licensed for export late in 1959 was the equipment for a large textile mill, valued at $17 million, which in itself would be a multiple of total 1959 exports to Soviet Russia. This seems to be the first transaction of such type in recent years. It was underwritten by a consortium of more than forty United States textile machinery concerns. Arrangements such as this one enable the Soviets to install machinery of the latest design without having themselves to devote the time and resources preparatory to their production. There is also a continuous flow of technical data from the United States to the Soviet Union and her European satellites. In 1959–60 it was the policy of the licensing authorities to permit the exportation of such data, which cover a wide range of industries, but to refuse permits in cases where the data relate to the petrochemical industry. These data are sent in connection with bids and quotations, and, as the licensing authority points out, if orders were received and contracts negotiated, the dollar value of the resulting exports could easily go into many millions.[27]

United States export control has been relaxed by the removal of many items from the so-called "positive list" which contains commodities for the exportation of which to Soviet Russia a license generally will be refused. As a rule items not on this list require an export license also, and the uncertainty whether this will be granted, and, if granted, whether it will not be revoked, constitutes in itself an obstacle to a substantial expansion of trade. As regards imports from Soviet Russia, those which are not on the free list are dutiable at 1930 tariff rates because the Soviet Union, under Section 5 of the Trade Agreements Extension Act of 1951, is not granted most-favored-nation treatment, which would extend to her the reductions in tariff rates and other concessions contained in trade agreements between the United States and third countries. From 1937 to 1952 Soviet Russia did receive most-favored-nation treatment from the United States. Whether this will be restored will depend upon an improvement in United States-Soviet relations. Until that time the higher duties generally payable on Soviet imports place an effective ceiling on these.

If trade between the United States and the Soviet Union were to expand drastically, this might check the increase in trade between Soviet Russia and Europe, which will presently be discussed. Furthermore, Soviet imports to the United States would compete with those of friendly nations, a contingency about which especially Canada has shown concern. Moreover, certain markets for primary products where the supply-and-demand relationships have turned unfavorable to the producers—cases in point are

[27] U.S. Secretary of Commerce, *Export Control.* Fifty-first Quarterly Report (Washington, D.C.: U.S. Government Printing Office, 1960), p. 7.

lead, zinc, aluminum, tin, and crude petroleum—would be disrupted further by imports from Soviet Russia.

Some of those who plead for an expansion of United States-Soviet trade, like the Cleveland industrialist Cyrus Eaton, have estimated that the United States could find in Russia a market for $3 billion worth of goods within a period of three years.[28] Those who favor increased trading will refer to the benefits the American economy could derive from higher exports and to the possibility that closer commercial ties might bring a reduction of political tension. Those who oppose it insist that the United States should not assist the economic development of a power whose avowed aim is the destruction of the American way of life. As the Soviets show much interest in the acquisition of complex industrial installations of the most modern type, there is reluctance also to exports that would mean parting with trade secrets and know-how and would enable the Soviets to duplicate the imported installations and with their products cut into established markets.[29]

Western Europe has been more responsive to Soviet demands for increased trade than has the United States. The Soviets have trade agreements with virtually every western European country, and in 1959 they concluded one also with Great Britain. This was to raise British exports to the Soviet Union from the equivalent of $66 million in 1958 to $224 million in the first years of its operation, an amount slightly over 2 per cent of total British exports. Imports are to be increased correspondingly, and the agreement is to be in force for five years. No special arrangements are made to finance British exports by government credit but exporting firms that do grant credit will be able to avail themselves of the export credit guarantees that normally are made available by the government.

As has of late become the custom in East-West trade, the agreement with Britain provides for the mutual exchange of a small amount of consumer goods, all told worth $5 million. Of greater importance are arrangements with private British concerns, made by the Soviets in 1959, that provide for the shipment of entire industrial installations, such as plants for the manufacture of tires and synthetic fibers.

The Soviet Union's trade with Western Germany is about equal to that between Soviet Russia and Britain and in fact exceeded it in 1958. A huge expansion is reported to be under consideration, however, which may bring it up to $1.6 to $1.9 billion a year, compared with $246 million in 1959. The Germans are much more liberal in their credit arrangements than other

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28 *New York Times*, May 20, 1959.

29 For the official viewpoint on U.S.-Soviet trade, see "U.S.-U.S.S.R. Trade Relations," Senate Committee on Foreign Relations, 86th Cong., 1st sess., June 24, 1959 (Washington, D.C.: U.S. Government Printing Office, 1959). See also Howard S. Piquet and Leon M. Herman, "How Much Business Can We Do With the Russians?" *Reporter*, January 7, 1960, pp. 18 f.; "Foreign Commerce Study: Trade with the Soviet Bloc," *Hearings* before the Senate Committee on Interstate and Foreign Commerce, 86th Cong., 2nd sess. (Washington, D.C.: U.S. Government Printing Office, 1960).

Western nations, and in 1959 for the first time after the war granted even long-term credits to Soviet Russia. Among the more important German export deals, one involves the construction of ships valued at more than $50 million and to be undertaken by a government-owned ship-building concern. Another, which United States firms had to turn down, the export license being refused, is for the delivery of steel tubing, worth about $40 million, for the construction of the pipelines to carry oil and natural gas from the Soviet Union to eastern Europe. Like a number of other countries in western Europe, but unlike Britain, Western Germany also imports Soviet oil.[30] It may be a sign of the times that Mr. Khrushchev, the Russian leader, was seen to "huddle" at the Leipzig Trade Fair in March, 1959, with the German munitions maker and erstwhile war criminal, Alfred Krupp, now the master of what is reported to be the greatest industrial combine in Europe.[31]

There is increasing Soviet trade also with France, Italy, Sweden, the Netherlands, Austria, and other European countries. In a way, the countries of western Europe may be said to be able to "afford" the expansion of their trade with the Soviets because the internal threat of political subversion, which was so strong in a number of these countries in the immediate postwar years, has much abated. It is a sign of strength that governments such as those of Adenauer and De Gaulle—in England, communism was never a threat—can expand their trade with Soviet Russia without having to fear that the internal repercussions of such action might give comfort to their communists and compound their power.

Thanks to American Marshall aid and their own vigorous efforts, economic conditions in the countries of western Europe have improved greatly, and many of these countries pass through a period of a veritable boom. While this has happened, the appeal of communism has vanished. Together with the immunity to Soviet penetration which many underdeveloped countries, which receive economic aid from the Soviets, have shown, the setback which the forces of communism have suffered in western Europe during the 1950's may well have been one of the most important political events of the decade. The communist position in eastern Europe and Asia has become consolidated, but unlike in the late 1940's there is no present danger that western Europe might go communist.

SOVIET COMPETITION

As Soviet Russia and her satellites have increased their production, the entry of their goods into foreign countries has on more than one occasion brought about a disruption of the respective markets. Early in the 1950's,

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[30] Joachim Joesten, "Through the Iron Curtain: West German Trade with the Soviets Is on the Rise," *Barron's*, June 8, 1959, pp. 9 ff.

[31] *Wall Street Journal*, May 26, 1959.

for example, the market of the United States potash industry was threatened by fertilizer imports from East Germany allegedly at prices below cost, below United States prices, below the higher world market prices, and below the prices charged by East Germany to customers in other countries. In 1954 this led to an investigation by the U.S. Tariff Commission.

Four years later, in 1958, there were similar complaints about cut-rate sales of Soviet aluminum. With aluminum imports to the Soviet Union from the free world precluded by United States export control, aluminum production in the Soviet bloc had quickly grown during the 1950's. It is possible that military shifts away from aircraft production to other weapons created a surplus of aluminum which the Soviets were eager to dispose abroad.

Again in 1958, when the Soviet Union for the first time emerged as a net exporter of tin, her sales at low prices, in the face of the United States recession, much disturbed the tin market. This market is controlled by the International Tin Council, which assigns marketing quotas to its members. The Tin Council, in its attempt to stabilize prices by buying up supplies to offset the Soviet sales, soon exhausted its available cash, but early in 1959 an arrangement was made under which the Soviets agreed to restrict their tin exports—in effect, they all but joined the international cartel. What made them do this, is not known, but it may be conjectured that the Soviets' disruption of the tin market had caused political repercussions in Indonesia, Bolivia, and Malaya, and that they considered these undesirable in the light of their political aims.

In 1960 the Soviets actually did join an international cartel by making an agreement with an affiliate of De Beers Consolidated Mines, Ltd., the world diamond monopoly, to the effect that Soviet diamond sales to the West would pass exclusively through the De Beers organization. This action took pressure off the diamond market and it probably enabled the Soviets to earn a higher revenue from their diamond sales than would accrue to them if they had failed to join the monopoly.

Professor Seymour Melman of Columbia University, an expert in industrial management and engineering of wide repute, anticipates a Soviet export drive in the field of machine tools, which presumably are produced at relatively low cost in the Soviet Union.[32]

A problem that is potentially of the greatest significance is the rise of Soviet Russia as an exporter of oil. The Russians are on the way to adapt their fuel economy to the American pattern and switch from coal to oil and gas. Supported by the discovery of large oil reserves in the Urals and Upper Volga regions—the "second Baku"—Soviet oil production has increased rapidly. The Soviet Union, whose production in 1945 had been only one tenth of that of the United States, surpassed Venezuela, the world's second-largest oil producer, in the early 1960's, when its output

[32] *New York Times*, October 26, 1959.

came to approach 50 per cent of that of the United States. By 1972 it expects to produce as much as did the United States in the late 1950's.

With rising Soviet production and with the world's oil supply exceeding demand, increasing Soviet oil exports at prices up to 25 per cent below those of Western competitors added to the weakness of the market for oil. Possibly because the conversion of domestic facilities to the use of oil lagged behind the expansion of production, the Soviet oil exports increased more than threefold between 1955 and 1959, and the number of countries receiving Soviet oil rose from twenty to thirty.

Many of the great oil companies of the free world are integrated in the sense that they are producers as well as refiners and distributors. In times of slackening prices, it is the production end of the business which is the most profitable one. In such times, more so than when there is a vigorous demand for their products, they will firmly resist any attempt to have their product dislodged from their own refining facilities. Because Soviet oil was cheaper, or because it required payment not in scarce foreign exchange but in local currencies to be used for local purchases, a number of countries tried to substitute imports of Soviet crude oil for imports from the oil companies of the free world. When the latter refused to allow the use of their facilities for refining Soviet oil, a troublesome situation arose in a number of cases, among which the Indian and Cuban stand out. In the case of Cuba, the commercial motives were mixed with political ones and the desire to make mischief, and the government seized the foreign installations. The oil companies attempted to retaliate by threatening to blacklist tankers that would carry Soviet oil to Cuba or to other ports, but in the face of a large amount of idle tonnage of oil tankers this proved ineffective. In India, where there was a desire to settle the matter amicably, a temporary reconciliation was achieved by means of price concessions made by the Western companies.

Nobody can know whether these troubles, which occurred in 1960, are the forerunners of worse to come in the future, or whether the Soviets will find a way to get along with the major producing companies, as they did in the tin and diamond cases.[33] The Soviet expansion of oil production in the 1960's coincides with hugely increased free-world oil supplies from the North African deposits. As the production cost of these is relatively low, the specter of an intensified price war, which would be costly to all parties, may invite restraint. There is likely, however, to be increasing rivalry for the rich markets of western Europe, where rapid economic growth as well as conversion from other fuels are responsible for a steeply rising consumption. This is a market into which the Soviets have already penetrated. If this market should become substantially dependent on Soviet supplies, the Soviets "will have available a new and formidable weapon of economic

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[33] For a discussion, see "Impact of Russian Oil," *Economist*, July 16, 1960, pp. 295 f.

warfare. By withholding supplies, by capriciously raising prices, or by dumping commodities, the Soviets in effect will have a seat at the council table of the great industrial nations of Europe."[34]

There are of course many other instances of Soviet exports going into markets hitherto considered the preserve of the Western powers. In 1959, the Soviet Union sent small amounts of wheat to Japan, the first such shipment after World War II. Soviet wheat also has been imported by the major countries of western Europe. Soviet cotton is imported by France. Communist China has increased her rice exports, and her soybeans compete with the United States product in Europe. All over southeast Asia a Chinese trade drive cuts into Japanese markets for cotton textiles and other consumer goods.

In the light of the foregoing discussion it may be possible to attempt an interpretation of the complex motives for Soviet trade rivalries with Western powers.[35] As a basic rule, it seems that the Soviets go after exports for the sake of commercial gain. They want to earn foreign exchange with which to finance imports to promote the industrialization of their country. But if in this process they can cause political trouble, they will consider this a most desirable by-product.

The pursuit of the commercial motive will give way when there are overriding political objectives connected with trade, as, for example, in the case of aid to underdeveloped countries (see next section, below). Likewise, the commercial motive will not be allowed to have free sway when its pursuit threatens to have repercussions that would frustrate important political objectives of the Soviets (tin case).

One might wonder how the Soviet Union can afford to sell its exports at cut-rate prices, as it does so often. This is possible, first of all, because Soviet Russian internal prices are set by the authorities. It is a subject of controversy to what extent the prices so set will reflect the forces which would determine them in a free domestic market, but it is safe to say that they have little or no relationship with prices in foreign countries. As to cost of production, must not the Soviet prices cover them? Cost accounting, however, is a complicated matter in any kind of economic system—what are the respective costs of jointly produced oil and natural gas?—and in Russia the difficulties are compounded by the fact that the state is the producer and trader. Under such a system, many more costs can be considered joint ones than even in the case of a large private concern that turns out a great variety of different products. How such joint costs are to be allocated is a matter of discretion to be decided by the authorities. To promote exports of good *A*, the state enterprise may be allowed to allocate a larger share of the joint costs to the related good *B* or to the entirely

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[34] Address by Allen W. Dulles, April 29, 1958, *op. cit.*

[35] See also Alec Nove, "Soviet Trade and Soviet Aid," *Lloyds Bank Review*, January, 1959, pp. 1–19.

unrelated good *C* produced by another state enterprise. Beginning in 1961, for example, the prices of new types of Soviet machinery were to be lowered, and this was to be done by allocating costs of research, development, and design to the general overhead of all industry rather than to the machines. This action was promptly interpreted as the sign of an impending export drive.[36] Under such arbitrary arrangements any kind of price can be shown to cover cost.

A private concern has no opportunity to imitate this practice because the industry is not under its jurisdiction and it cannot allocate its costs to it. The equivalent of the Soviet practice would be a government subsidy to the private concern. If the private concern is a diversified one, the most that it could do would be to allocate some costs incurred in the production of one type of good to some other type, but the forces of the market will as a rule impose limits on this practice also.

The Soviets, of course, do not follow a systematic policy of charging prices less than the traffic will bear. Businessmen who are acquainted with their practices testify that they are hard bargainers. The managers of the state trading organizations, as a rule, will try to get as much foreign exchange out of a deal as is possible. If they do sell at cut-rate prices, the motive may be to break into established trade relations, or to disturb markets, or to dispose of surpluses otherwise not salable.

In view of the capriciousness of communist trade practices, small countries, which anyhow are in a weak bargaining position when trading with powerful and aggressive partners such as the state trading bodies of the communist countries, might wish to join forces. Professor Vernon, a prominent American authority in the field of international trade practices, has indeed made the proposal that the United States "should invite all those free-world countries that are willing to join to negotiate collectively with the Soviet bloc for an expansion of East-West trade."[37] A new venture in commercial policy such as this might be of some help in distributing bargaining power more evenly, and it might give the countries of the free world some measure of protection.

Professor Vernon's proposal, if endorsed by the United States, has a good chance of success. The United States Council of the International Chamber of Commerce has for some time maintained contacts with the Soviet Chamber of Commerce, with the aim of promoting the draft of a code of fair practices for East-West trade. As the Soviets have come to place a high value on impressing the world with a favorable image, it is possible that they will endorse this idea, which has been debated in their own publications. There it has been linked with the possibility of Soviet affiliation with an international trade organization for multilateral deals, be it a new

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[36] *New York Times*, August 8, 1960.

[37] Raymond Vernon, "'Co-existence'? And 'Peaceful'?" *New York Times Magazine*, July 10, 1960, p. 56.

one or the General Agreement on Tariffs and Trade.[38] Within the framework of such an organization, the position of an individual country vis-à-vis the Soviet bloc is likely to be greatly strengthened.

SOVIET ECONOMIC AID

Nature of the Program. When the drive for the expansion of Soviet power into western Europe was checked during the 1950's, the communists began to concentrate their efforts on the economic and political infiltration of the underdeveloped countries outside the Soviet bloc in Asia, Africa, and Latin America. Following the United States precedent, the Soviet undertook a program of aid to these countries in the mid-fifties, some six years after the start of the American program.[39] Soviet aid was small in the beginning but it gradually became larger and will fairly soon run into about $1 billion a year, approximately a quarter of the grants and loans forthcoming from the West.

The Soviet program is mainly one of credits and technological assistance, and outright grants play only a small role. Much of it consists of barter or similar bilateral deals, and it is questionable how many of these really can qualify as aid.

The program aims at showing the Soviets in the best light. They advertise their aid as one to which no political strings are attached, but when an opportunity offers itself, they will adroitly exploit it to gain political advantage. They will cloak themselves in the garb of self-appointed protectors of countries emerging from colonial rule, as they do in Africa; they will try to make political capital of tensions between underdeveloped countries and the West, as in Cuba, Panama, and the Middle East, and they will advertise communism as a short-cut to accelerate the economic growth of their clients.

Loans are made available on attractive terms, and they usually carry an interest rate of 2½ per cent, half as much as is often charged by the West. Goods are sold at world market prices or lower. In the mid-fifties there were some clumsy attempts at exploitation—palming off shoddy and overpriced merchandise, and disposing of bartered returns in third markets in competition with the original suppliers—but these resulted in much publicity undesirable from the point of view of the Soviets, and they were not repeated in more recent years. This does not preclude, of course, the possibility of their resumption in the future, if the Russians should come to care less about the impressions they make on the underdeveloped countries.

[38] *New York Times*, May 8, 1960.

[39] For a description of the various programs, see U.S. Department of State, *Credits and Grants Extended by the Sino-Soviet Bloc to the Less Developed Countries of the Free World* (June, 1959), also, by the same agency, *Communist Economic Policy in the Less Developed Areas* (Washington, D.C.: U. S. Government Printing Office, 1960).

Showy projects of aid that have a high publicity value and are likely to impress the residents of the underdeveloped countries are preferred by the Soviets over those whose beneficial effects are more hidden. On occasion their projects do not yield any direct economic return to the receiving country, but the Russians will promote them regardless, such as in the case of a stadium in Indonesia and of a radio station in Guinea. Usually, however, the projects aim at the development of small or large industry, in response to the most cherished ambitions of the underdeveloped countries.

Aid often is made available very quickly and in the form of long-term commitments, without prolonged negotiations for detailed agreements and guarantees. The industrialization projects do not result in the establishment of foreign-owned enterprises that are in the country to stay.

In connection with the aid projects, there are special scholarship programs in Russia and elsewhere for students from Asia, Africa, and Latin America, and training schools for trade union leaders. All these aim, of course, at the indoctrination of the participants. The personnel of the technical assistance teams is composed of Russians as well as of nationals of the satellite countries, and when an opportunity offers itself for indoctrination or overt or undercover support to the local communists, the most will be made of it.

Effects of the Program. The principal threat which the Soviet aid program constitutes relates to its trade aspects. The economic position of many raw materials and agricultural products turned out by the underdeveloped countries has deteriorated sharply in recent years. Bilateral deals with the Soviets often provide an assured market for large portions of the output of the export-oriented, single-crop economies which are characteristic of so many underdeveloped countries. Experience under the Nazis point again to the sinister possibilities which are opened up by such deals with a totalitarian power.[40] They are apt to increase the dependency of the underdeveloped country on a market that is controlled by political considerations and might be closed as swiftly as it is opened up. By gearing their production to the requirements of the Soviet buyers, the respective economies lose touch with the world market and forego the bargaining power inherent in the ability to utilize alternative sales outlets.

The United States has not explicitly opposed the Soviet program of aid as such and as a whole but has welcomed the underwriting, by the Soviets, of part of the cost of eradicating poverty in the world.[41] Any other attitude would have been politically impossible in view of the underdeveloped

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[40] The Nazi practices are discussed by Hans Staudinger, "The Future of Totalitarian Barter Trade," *Social Research*, Vol. VII, pp. 410–33 (1940). This article should be required reading for any one trying to do business with the Soviets.

[41] Address of George V. Allen, director of the United States Information Agency, at the Annual Luncheon of the Beekman-Downtown Hospital, New York City, January 12, 1960, and address of the same date at the Lawyers Club. *New York Times*, January 13, 1960.

world's needs and aspirations. The United States, however, has not failed to point out the dangerous uses to which the bilateral agreements may be put.[42] In this situation, the proposal (mentioned above, p. 544) that the United States should encourage the formation of a joint front of all countries that wish to expand their trade with the Soviet bloc, is one that deserves the most serious consideration.

Many countries that are assisted under programs of foreign aid belong to the neutral, or uncommitted part of the world. With aid forthcoming both from the West and the East, these countries will want to adhere to a position that enables them to live in the best of all possible worlds and to play out one donor against the other. Neither the Soviets nor the Western powers can hope through programs of aid to ingratiate themselves with these countries to an extent that would mean that the recipients of aid would model their domestic institutions after the pattern of either donor.

The idea that the payment of subsidies can attach a country to a political bloc is a residue of past times when wars and political decisions were considered by the people the affairs of the kings or bosses and when these sold their support to the highest bidder. Under present conditions, with nationalistic aspirations and the desire for political self-expressions so strong and rising everywhere in the underdeveloped world, this antiquated and naive idea simply will not work. A classic illustration of its failure is the case of China, "which received great Soviet aid in the twenties and massacred its communists, and almost none at all in the forties but is now *plus royaliste que le roi.*"[43]

Indigenous communism feeds on misery and ignorance. The best that the West can hope for is that the alleviation of poverty, disease, and educational deficiencies, and the acceleration of economic growth in the underdeveloped countries will create there an atmosphere unfavorable to the spread of communist ideas, and will make these countries stronger and better able to resist attempts at communist penetration. As they grow stronger economically, they will in due time develop economic and political institutions of their own. While receiving aid from both the West and the East, most of them show little inclination to copy either our free-enterprise system or to go communist voluntarily. In fact, a number of them, including Egypt, Iraq, India, and Argentina, have either outlawed their communist party or otherwise intensified their opposition to domestic communism.

The attachment to democratic ideals and institutions requires organic growth and a suitable material basis. In a number of countries, of which India is the outstanding example, the long-standing affiliation with Britain has instilled in them the tradition of government by consent and revulsion against totalitarian rule. Unfortunately, the situation is quite different in

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[42] Address of Douglas Dillon, Under Secretary of State, at the United Nations Economic and Social Council, Geneva, July 11, 1960. *New York Times*, July 12, 1960.

[43] *Economist*, June 13, 1959, p. 1015.

other parts of the world, especially in Africa, where the colonial rulers prefer warfare to quitting, or, if they do quit, often fail to make arrangements for the transfer of power and the continuation of aid to an indigenous government, and where such arrangements, if they are made, may be frustrated by mutual feelings of hostility and suspicion. The departure of the colonial power then leaves a vacuum into which the Russians will try to penetrate (Guinea, Congo). Here as elsewhere the threat of undesirable effects of Soviet aid diminishes in the same proportion in which aid from the West is made available more swiftly, more generously, and under more attractive conditions.[44]

SUMMARY

The Soviet challenge is not only a military one. In addition, the Soviets threaten to outproduce the West and to penetrate foreign uncommitted countries. The Soviet gross national product increases at a rapid pace, especially its industrial component. The high growth rate of the U.S.S.R. is due to large investment and small consumption and a number of other factors, some of temporary character.

The rise of Soviet economic power is paralleled by that of Communist China which aspires to become the world's third largest industrial establishment in a dozen years. The Chinese industrialization drive imposes great sacrifices upon the people. They are organized in communes where all phases of their life are collectivized and supervised and where men and women are driven hard to work with their last ounce of strength.

The economies of the individual members of the Sino-Soviet bloc are centrally planned. Over-all planning that would cover all of them is still in an early stage of development. Most trade carried on by the Soviet powers is in barter or bilateral form. This is preferred for administrative reasons but it also facilitates the exploitation of the weaker partner. The Soviets have engaged in vigorous trade drives, and the volume of their trade with a number of countries outside the Soviet bloc has expanded, including the countries of western Europe, which have grown so strong and prosperous that communism no longer constitutes an internal threat. Since the mid-fifties the Soviets have sponsored a program of economic aid to under-developed countries. The dangers of this program will be reduced if the Western program of aid is expanded and liberalized.

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[44] See Barbara Ward, "The Great Challenge Is Not the Sputniks," *New York Times Magazine*, February 23, 1958; also Hans Heymann, Jr., "Soviet Foreign Aid as a Problem for U. S. Policy," *World Politics*, Vol. XII, No. 4 (July, 1960).

Houghton Mifflin Co., 1960. This work brings together much valuable material on the internal aspects of the Soviet economy. Internal as well as external matters are covered in a symposium to which many prominent American students of the Soviet economy have contributed. It forms part of the "Comparisons of the United States and Soviet Economies" made by the Subcommittee on Economic Statistics of the Joint Economic Committee, 86th Cong., 1st sess., and has been published as *Papers* Submitted by Panelists in three parts by the U.S. Government Printing Office, Washington, D.C., 1959. See also the *Hearings* before the same Committee, 1960, and Alec Nove, *Communist Economic Strategy: Soviet Growth and Capabilities*, Washington, D.C., National Planning Association, 1959.

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STUDY QUESTIONS

1. What is the twofold nature of the Soviet economic challenge?
2. Why does the Soviet threat to outproduce the United States constitute a danger?
3. What are the recent trends of Soviet economic growth?
4. What are the principal factors accounting for Soviet economic growth?
5. What do the Russians mean by "gigantomania"?
6. What is meant by the statement that the West has to pay a penalty for having been in the lead?
7. What are some possible checks to Soviet economic power?
8. What are the Chinese communes like?
9. What has been the function of Comecon?
10. What are some instances of over-all planning in the Sino-Soviet bloc?
11. In what way have the communists rediscovered the principle of the international division of labor?
12. Compare bilateral and multilateral trade.
13. How can bilateral trade be abused to the disadvantage of the weaker partner?
14. How have the Soviets used trade as an eonomic weapon?
15. What are some basic difficulties in East-West trade?
16. What are the arguments in favor of expansion of United States-Soviet trade?
17. What are the arguments that oppose an expansion of United States-Soviet trade?
18. Is it a sign of strength or of weakness that the countries of western Europe have expanded their trade with the Soviets?
19. In what ways has Soviet trade disrupted markets?
20. How can the West cope with the undesirable effects of the Soviet aid program?

V. *TOWARD INTERNATIONAL PEACE*

Chapter 21 PROBLEMS OF INTERNATIONAL TRADE

THE INTERNATIONAL ECONOMY

International economic transactions differ from domestic transactions in that they relate to the movement of money, commodities, or persons over national boundaries. The degree of the difference depends upon the extent to which such movements are impeded by man-made obstacles. If such obstacles are moderate the difference between domestic and international economic transactions is small indeed. This was in substance the situation under the laisser-faire system of old-time liberalism, a type of economic organization that attained its greatest prominence during the nineteenth century.

Since then, there has occurred a reversal in policy as well as in the theoretical discussion of international economic relations. The establishment of numerous barriers to the movement of persons, money, and commodities over national boundaries has created conditions similar in many respects to those which prevailed during the era of mercantilism, when foreign economic relations were rigidly controlled by governments. Such relations were then used as an instrument designed to serve the aggrandizement of statecraft.

The movement of commodities, including services, is the subject of international trade; that of money, of international finance. Both international trade and international finance are closely interrelated. The movement of goods gives rise to international payments, and the movement of money is often connected with the transfer of commodities. The acquisition of foreign assets in the form of securities or of tangible wealth is called "foreign investment."

The Rationale of International Economic Relations. The purpose of international economic relations can be investigated either from an economic or from a political point of view. On strictly economic grounds, benefits can be ascribed to the international movements of commodities, investment funds, and persons. Imports have the function of adding to the volume of goods available for domestic use. Exports are designed to pay for these goods, or they may be intended to pay for the acquisition of foreign investments.

Exports also create employment at home. First, employment is created for the workers who directly are engaged in the production of export articles. Second, additional people must be employed to produce the raw materials, components, and services purchased by other industries for incorporation in goods for exports. Third, exports stimulate, via the multiplier, induced employment in consumer-goods industries. All this means that exports relieve unemployment during depressions. But in boom periods, when the economy operates at capacity, additional exports are likely to be reflected in higher domestic prices.

Investments, that is, foreign borrowing or lending, make the supply of capital more nearly equal throughout the world than would be the case in their absence. In the capital-importing country, productivity is increased; whereas the capital-exporting country receives returns in excess of those that could be obtained by means of home investment. In a similar manner the movement of persons, if guided by the pull of economic opportunities, transfers factors to employments where their productivity is higher.

From a political point of view, international economic relations can be utilized as instruments for the realization of political objectives. If peace is the goal of political action, international economic relations may be useful for its promotion by stimulating foreign income and employment or by supporting friendly governments through other economic means. Political influence abroad is often a corollary of economic influence—trade follows the flag and the flag follows trade. Just as political purposes may be pursued with economic means, so may economic purposes be supported by political pressure. A policy of this sort is often referred to as "imperialism," especially if it aims at foreign markets or opportunities for investments. The theory of imperialism was first developed by the followers of Marx and applied by them and others to the colonial rivalries of the European powers in the nineteenth century and to the "dollar diplomacy" pursued at times by the United States in Central and South America. More recently the term "imperialism" has come to refer not only to the use of political pressure to attain economic objectives but also to the use of economic pressure to attain political objectives, with the Soviet Union pursuing an aggressive policy of imperialism in all senses of the word.

Foreign economic relations may also be placed in the service of war—hot or cold. Economic warfare is designed to weaken the economic power

of the enemy. It uses export control to prevent the enemy from obtaining needed commodities, import control to frustrate possible sales of the enemy country, preclusive purchases in third countries to arrest the flow of goods from these to the enemy, blacklisting of neutral firms which trade with the enemy, etc.

On the basis of the foregoing considerations, it is possible to characterize in rough terms the meaning and significance of foreign economic relations for the United States. On strictly economic grounds the over-all importance of foreign trade may not seem impressive, because relative to the national income the value of exports or imports is very small, amounting to only 4 per cent. This compares with over 30 per cent in Norway, about 25 per cent in Denmark and Switzerland, about 20 per cent in Austria, and 15 per cent in Britain. Nevertheless, our foreign trade is more important to us than the low ratio to the national income indicates. Such items as crude rubber, tin, coffee, raw silk, carpet wool, jute fiber and burlap, diamonds, cocoa, bananas, tea, manila fiber, chicle, quebracho, and cobalt are supplied exclusively in the form of imports. Of many other commodities, substantial percentages of the total supplies are imported. While a number of these articles could be produced at home, or their production at home could be increased, this would entail a waste of productive resources.

The United States continues to be plentifully endowed with a variety of important raw materials. However, in the case of oil, iron ore, copper, lead, zinc, and a number of others the growth of our economy has been responsible for a shift in our position from net exporter to net importer. We are also dependent upon foreign supplies of a large number of metals and nonmetallic minerals. This constitutes no problem of short-run shortages because of virtually all these materials large stockpiles have been accumulated (see p. 517). There is, of course, the possibility that in the years ahead our dependency upon imports of raw materials might rise faster than our national income, and if this event should take place, our foreign trade would constitute a larger proportion of our national income than it does now.

In the case of exports the insignificant total figure beclouds the fact that among specific branches of production or regions the importance of foreign markets is very considerable. As a rule, over 50 per cent of our cotton, some 40 per cent of our wheat, and about 30 per cent of tobacco are exported in a year. So are substantial portions of our production of machinery of various types. Without the foreign markets, some regions would suffer from economic blight, and industries be forced to operate at a less economic scale. Directly and indirectly our exports provide employment for an estimated five million people, that is, about 7 per cent of our labor force.

In per capita terms, foreign trade is much higher in many countries abroad than it is in the United States. Countries such as the United King-

dom, Belgium, Holland, Switzerland, and the Scandinavian countries have a per capita volume of foreign trade that is two to three times that of the United States. Western Europe and the United Kingdom do about 45 per cent of the world's trade, although in terms of single countries the United States is the world's largest exporter and importer. This is a position which we have held only since World War II, when the United Kingdom lost its first place. Obviously our shares in total world trade have declined since the immediate postwar period, when so many foreign countries were in economic distress—from which they have recuperated. In 1959 our share in world exports, excluding the Communist bloc, was somewhat below 17 per cent, and in imports 15 per cent. In either case the ratio is well above what it used to be before World War II. We are the largest international trader and the leading producer in the world. Although the United States includes less than 10 per cent of the world's population, her share in the world's production has risen from 44 per cent in 1937 to a peak of 57 per cent in 1948. Since then it has fallen as foreign producers recovered from the ravages of the war. It is still in the neighborhood of 50 per cent but it continues to fall as many foreign economies grow at a faster rate than does our own economy.

The size relationship between a country's exports and its imports—that is, whether exports are larger than imports or vice versa—usually follows a fairly well-established evolutionary pattern. A country in the early stages of its development has little to export. If it becomes the destination of foreign investments which are made in the form of imports, it will on balance show an excess of imports. Such a country is known as an "immature debtor country." Eventually the foreign investments will have helped to build up the country; and the service of these, made in the form of merchandise exports, may come to exceed the inflow of goods, resulting on balance in an excess of exports. The country has turned into a mature debtor. As time goes by the mature-debtor country will have paid off its debts and, having been fully developed, may begin itself to make foreign investments abroad, causing its exports to continue to exceed its imports. The country now is transformed into an immature creditor. Eventually, it may have accumulated so large an amount of foreign assets that the service for these, in the form of interest and repayment of the principal, causes its imports to exceed its exports. The country has become a mature creditor. England was a mature creditor at the time of the outbreak of World War II. The United States has passed through the three stages before the final one.

Since the seventies of the past century, United States exports have been in excess of imports. Up to that time, imports had been larger than exports. The relatively large size of imports had mirrored the increase in European loans placed in this country. Since the seventies the volume of these has fallen off rapidly and repayments set in, a development that was reflected

in increasing exports. Exports were further stimulated during the two World Wars, which in conjunction with the attending decline of the economic strength of Europe caused the United States to assume foreign lending and in the end to become the world's principal lender.

As for the regional distribution of our foreign trade, some 20 per cent is usually done with Canada, another 20 per cent with Latin America, from 25 to 30 per cent with western Europe, from 10 to 20 per cent with the Far East, and the remainder with Africa, western Asia, and the Soviet bloc. Our trade with Canada as a rule yields us a large export balance, and so does, except for 1959, our trade with western Europe and the Far East. As regards the commodity distribution of our trade, a large part of our exports to Canada as well as to other parts of the world consists of machinery. Our biggest import items are paper and paper materials from Canada, and petroleum and coffee from Latin America.

While Canada is both our largest customer and supplier, the United Kingdom holds second rank among our suppliers, being followed closely by Japan, whose sales to the United States in 1959 were almost as large as those from the United Kingdom. West Germany holds fourth place both with respect to imports and exports. As regards the latter, our exports to Japan have since 1957 exceeded those to the United Kingdom, making Japan our second-best customer, followed by the United Kingdom and West Germany.

A Review of Foreign-Trade Theory. The economic theory of foreign trade does not take into account the political objectives which are of such overwhelming importance in the field of international relations. Precepts immediately derived from international economics often diverge sharply from the demands of the day. Moreover, these precepts not seldom require policies harmful to sectional interests, while their long-run benefits are diffused over the public at large. This is the chief factor explaining the gap between the conclusions of theorists and politicians in the field of international trade.

On strictly economic grounds, virtually all man-made obstacles to the free movement of persons, commodities, and money are objectionable, because they tend to cause incomes to fall short of the level they would be capable of attaining in the absence of such impediments. If people are allowed to migrate in response to economic incentives, the marginal productivity of labor will rise in the country of emigration and fall in that of immigration, and until both are equated the immigrant's productivity is higher in the country of his choice than it was at home. There is thus a net addition to world production.

A similar consideration can be applied to movements of capital. It moves abroad because there it is more productive than at home, and the movement will stop only when marginal productivities are equated everywhere. But factors of production like labor and capital are limited in their mobility

even when public restraints are absent, and the mobility of land is still more limited. Different countries are thus bound to be equipped with the factors of production in different quantities. Moreover, productive factors, though they are for purposes of theoretical analysis reduced to a few classes, are not homogeneous. From these facts there arises the desirability of commodity trade. The factor that is scarce in country A may be more plentiful in country B. Since this situation can be only inadequately modified by the importation of the scarce factor into country A, this country will import goods into which much of the scarce factor has entered. It will export goods that absorb productive resources which are more plentifully available at home. In this manner, incomes everywhere will be increased above the level that would prevail if countries would insist on producing all things at home. A given amount of resources produces exports that can be exchanged against a larger quantity of imports than could be produced at home with the help of the same resources.

Trade is adventageous not only if the exporting country has an absolute advantage in the production of the exported commodity; that is, if the real costs—the quantity of resources used in its production—are lower than in the importing country. Trade is advantageous also if the exported commodity is produced in the exporting country at a higher real cost than in the importing country, provided only that there are enough other commodities for which the relative cost of production in the former country is still greater. This means that the country with the higher real cost of production will import the commodities for the production of which it is least suited and export those for which its relative disadvantage is less pronounced. This so-called "principle of comparative advantage" can be best visualized with the help of an arithmetical example. If a given amount of real resources alternatively suffices for the production of 10 units of commodity A or 20 units of commodity B in country I, or of 30 units of A or 40 units of B in country II, country I has a comparative advantage in producing and exporting commodity B, regardless of the fact that country II can produce A as well as B more efficiently. Country II will do well to specialize in the production of A. If they arrange their production in this way both will make gains. Country I at home exchanges 10 A for 20 B; country II, 15 A for 20 B. If they trade, country I will receive up to 15 A for 20 B; and country II, up to 30 B for the 15 A which at home buy only 20 B. The arrangement may force producers of A in country I and of B in country II to shift to other lines of economic activity. The price system may bring about such adjustment with considerable internal friction; firms may be driven into bankruptcy and employees may be put out of work. This explains much of the opposition to free trade once protective measures have been in force.

Multilateralism. Foreign trade operates to the greatest benefit of the world if every partner is permitted to buy in the cheapest and sell in the

dearest market. This will often require triangular trade relationships: country I buys from country II and sells to country III, paying country II with the proceeds from its sale to country III. Relationships of this sort are called multilateral. They are contrasted with bilateral relations. Bilateral trade manifests itself in barter, payment, and clearing arrangements under which each country aims at buying from another as much as the other bought from it. This often has the effect of restricting the volume of trade: if country I buys less from country II than country II buys from country I, this tends to lead to a restriction of country II's purchases rather than to an expansion of those of country I. It also tends to divert trade into wasteful channels: instead of buying in the cheapest market, countries buy from those partners to which they make sales.

Trade Restrictions. As will be seen, variations of foreign exchange rates and of internal prices will affect the volume of exports and imports. In a more direct manner, imports can be regulated with the help of tariffs. Tariffs or customs duties are taxes on imports levied for the purpose of revenue production or control. While tariffs may be designed to relieve conditions giving rise to a temporary disequilibrium in a country's foreign payments, more often their purpose is limited to conferring benefits on sectional interests which otherwise might be harmed by foreign competition. In still other cases, tariffs are intended to promote political objectives such as self-sufficiency or military preparedness.

During the present century, there has at times been a tendency toward increased tariff protection as well as toward new forms of protectionism, often referred to as quantitative controls. Unlike tariffs, quantitative controls specifically limit the quantity of goods that may be imported. This is done by the assignment of so-called "quotas" to importers. Other restrictive measures are applied in the field of international finance. They include exchange control, that is, the imposition, by the government, of restrictions on the acquisition or disposal of foreign exchange. Under exchange control, exporters are generally required to sell the proceeds from their transactions to the central bank or to a government agency; and prospective purchasers of foreign exchange must first procure a permit from the exchange-control agency. Further restrictions are placed on the exportation of the domestic currency and on transactions in gold.

Policies of this sort are referred to as "economic nationalism." It manifested itself during the thirties in new and intensified restrictions on international trade, finance, and migration. At that time the restrictions were designed to check the further spread of domestic unemployment. Economic nationalism suffered an eclipse under the impact of the war and postwar boom. Countries passed through a period of full employment. Goods had become scare under the influence of wartime requirements and postwar dislocation. Germany, the most aggressive trading partner, had temporarily disappeared from the scene. Generous policies of reward for

wartime purchases by the United States, in the face of a shortage of imports, had in some countries resulted in the accumulation of substantial gold and foreign exchange reserves. In this situation, many of the nationalistic restrictions on trade and capital movements were somewhat relaxed. This tendency, however, did not prevail for long; and it affected only a limited number of countries.

Customs Unions and Trading Blocs. A new trend which arose during the late 1950's brought to the fore customs unions or similar trading blocs which remove the restrictions on the trade among the members but retain those against outsiders. In the fullfledged customs union the external tariff against outsiders becomes a common one. The European Economic Community, or Common Market, about which more will be said later in the chapter, is an illustration of such an arrangement. In another type of organization, exemplified by the European Free Trade Association, the members continue to set their own external tariffs. As the trade barriers among the members of the new organizations are removed, the widening market creates new opportunities for mass production and specialization. Industry can benefit from economies of scale and operate more efficiently. As trading blocs spring up in Europe, similar organizations are created by underdeveloped countries which see their established markets threatened and are eager to industrialize and widen the home market for their industrial products.

UNITED STATES COMMERCIAL POLICY

Most-Favored-Nation Treatment. Customs unions and free trade associations discriminate against those countries which are not members of the system because imports from nonmembers are subject to the external tariff whereas goods moving from one member country to another are to be admitted free of duty.

Other forms of discriminaton are represented by exchange control and bilateralism, which make for discriminatory treatment of the trading partners. Purchases and sales are not made in accordance with the principle of comparative advantage; they rather reflect the allocation of foreign exchange by the government or the amount of trade with a specific country. The United States commercial policy, while traditionally operating at high tariff levels, has for long been attached to the principles of multilateralism and nondiscrimination, as well as to most-favored-nation treatment. Under the most-favored-nation clause of commercial agreements the participants promise each other all concessions which they may grant to third parties. The most-favored-nation clause thus reflects a spirit averse to preferential agreements in which exclusive concessions are granted to a specific partner. Preferences have come to prevail among the members of the British Commonwealth. They were instituted first under

the name of "imperial preferences" at the Ottawa Conference of 1932. As customs unions and free trade areas are established, new preferences are created. However, for political reasons—to strengthen the respective economies—the United States has not resisted the rise of such organizations in the free world.

The Trade-Agreements Program. In spite of its attachment to the most-favored-nation principle, United States commercial policy, as noted, has been characterized for long by high tariffs, culminating in the Hawley-Smoot Tariff of 1930. But under the influence of the Great Depression and the ensuing shrinkage of world trade, a program was sponsored in 1934 that was designed to lead the way toward a reduction of tariff barriers in the United States and throughout the world. Under the Reciprocal Trade Act of 1934 the President was authorized to ratify reciprocal treaties containing substantial reductions of statutory duties. As these treaties do not require congressional approval, the log-rolling tactics of sectional interest groups that are attached to high duties are effectively restrained.

The trade-agreements program, originally limited to a three-year period, has invariably been extended by the Congress, at times, though, only for a single year. Each extension is preceded by a protracted battle with the protectionist interests, and to satisfy these, the program has been whittled down in important respects. Under the 1958 extension, which was granted for four years, the President can reduce tariffs by no more than 20 per cent altogether. Since the late 1940's, "peril point" provisions and escape clauses have brought about a progressive erosion of the program.[1] Under the peril point provision the President must wait up to six months, pending an investigation by the Tariff Commission, before concluding an agreement. The Tariff Commission is an independent federal agency composed of bipartisan members. It will hold hearings and determine peril points below which tariffs should not be cut in the interest of United States producers. The escape clause permits the United States to modify reductions previously agreed upon, if imports are injuring a domestic industry. On application for relief under the escape clause, the Tariff Commission will complete an investigation within six months. If the President disapproves a recommendation for relief made by the Tariff Commission, his decision can be overridden by a two-thirds vote of each house. In such cases the President is authorized to raise tariffs as much as 50 per cent above the 1934 level and impose duties as high as 50 per cent on duty-free imports, but there is little likelihood that use will be made of this authority, the President, as a rule, being much less protectionist-minded than the Congress. Furthermore there is a national-security clause, under which the President is directed to limit imports if national security calls for such action. National security is de-

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[1] See Charles J. Walsh, "U.S. Economic Foreign Policy and the Escape Clause," *Review of Social Economy*, Vol. XVII, No. 1 (March, 1959), pp. 1–22, Gardner Patterson, "United States Import Policy," *Lloyds Bank Review*, April, 1959, pp. 35–49.

fined in such broad terms in the 1958 extension of the reciprocal trade agreements program that it is possible to consider the mere impact of *foreign competition* on domestic companies as injurious to national security.

The trade-agreements program meant no break with the most-favored-nation clause. Contrariwise, trade agreements must contain this clause. At first glance, this may seem to make the whole procedure pointless, because all countries, without granting special benefits to the United States, would be allowed to enjoy the concessions granted to a specific partner. This consequence is more imaginary than real, however, because the country which receives a concession for a commodity usually has the greatest stake in this commodity. Also, the concessions are often so worded that they limit the effects of the agreement by making it applicable principally to the specific partner.

The General Agreement on Tariffs and Trade. In the course of the years the United States concluded reciprocal trade agreements with close to thirty foreign nations on an individual basis. Most of the results of the trade agreements program as originally carried out by negotiations between the United States and a single foreign country have by now been incorporated into the General Agreement on Tariffs and Trade, known as GATT, which the United States and more than twenty other nations concluded in 1947. This was done under the authority of the Trade Agreements Act and did not require the express approval of Congress. GATT, which was revised in 1955, establishes a framework for reciprocal tariff-bargaining, which is undertaken at periodic conferences by the representatives of countries whose number has gradually increased to 44. On principle, the rules of conduct incorporated into GATT call for most-favored nation treatment and the elimination of quotas. There are, however, numerous escape clauses and exemptions for agricultural products, customs unions, and countries that are in temporary balance-of-payments difficulties.

The United States took the initiative in drafting in 1955 an agreement providing for the establishment of an Organzation for Trade Co-operation, to be known as OTC, which would administer the operations under GATT. Although the ratification of this agreement was the main provision in President Eisenhower's foreign trade program, Congress has never given its approval to it. There was thus repeated in the 1950's what had happened in the 1940's, when at the behest of the United States the Havana Charter for an International Trade Organizaton was drawn up by the representatives of more than fifty nations, and when the Congress likewise failed to take action, the pressure of protectionist interests being impossible to overcome in either instance.

Under GATT the participants have agreed to numerous tariff reductions, to the maintenance of low tariffs, and to other concessions. The products affected by this agreement account for over three fourths of the

world's international trade. Since the early 1950's general undertakings were made to "bind" all concessions made previously, and this has resulted in the stabilization of some 55,000 tariff rates, covering close to 80 per cent of world trade.

Average United States tariff rates on dutiable imports have come down from over 50 per cent, the level held during the early 1930's, to less than 12 per cent. In part this has been due to the trade agreements program, but almost equally strong has been the effect of rising prices which cause the so-called "specific duties"—which are expressed in amounts of money per unit of merchandise rather than in percentages of the value of the latter—to decline relative to the value of imports. About 40 per cent of our imports are duty-free—those on coffee and other noncompetitive foodstuffs and raw materials—compared with some 65 per cent in the early 1930's. The relative decline of duty-free imports is due to an increased demand for articles carrying low duties, reflecting rising incomes and the average reduction of duties. However, tariff rates on a number of manufactured articles still are high, and there are quantitative restrictions—quotas—on a number of competitive farm products and raw materials.

GATT will continue to serve extremely important functions in the years ahead. It will have to cope with the problems created by the rise of trading blocs in Europe and other parts of the world. It will provide a meeting place where the underdeveloped countries can make their voices heard in matters of trade. If effectively led by the United States, it may become the nucleus of an organization to strengthen the position of an individual country when trading with the Soviet bloc.

The Prospects for Freer Trade. As will be seen in the next chapter, the United States balance of international payments had large deficits in the 1950's. These have created problems of their own which will be discussed in their proper place. One means of reducing the deficits are surpluses in our merchandise trade. As has been seen, we still produce such surpluses every year, although at times they have been rather small. This situation has provided grist for the mills of the protectionists and encouraged demands for greater restrictions on imports, while at the same time strong pleas are made in support of increased exports.

The government has only limited means to promote increased exports. It can make available credit facilities to finance exports or guarantee the proceeds from foreign sales. A program along this line was initiated in 1960, utilizing the resources of the Export-Import Bank. But principally it is private enterprise that can seek out and exploit opportunities for exports. Unlike during the 1940's, the world is no longer starved for American goods, and there are certain factors at work which constitute obstacles to a United States export drive. West Germany and Japan have resumed their important position in the world market. American exporters meet stiff competition from these and other sources. Moreover, the rise of the Com-

mon Market and other trading blocs work to the disadvantage of imports from the United States, at least in the short run, and so does the establishment of foreign subsidiaries by many American companies (see below, p. 576).

Some will argue that the United States has priced itself out of the world markets and refer to the high wage differentials with their unfavorable effects on costs and prices. Such differentials have for long been a characteristic of the high-wage economy of the United States, where labor is scarc relative to natural resources and capital. In the past they have not impeded the production of large export surpluses because along many lines there was a still greater productivity differential, with resulting favorable effects on United States labor cost. For example, if United States labor should earn, say, hourly wages five times those of foreign labor, United States labor cost would still be lower, provided the hourly output in the United States is more than five times that of foreign labor. It seems now that the wage differential has increased: the United Nations Economic Commission for Europe has found hourly earnings in a number of important European countries to be significantly lower relative to those in the United States than they were in 1937, by about 15 per cent in France, 30 per cent in Britain, 35 per cent in Switzerland, and 50 per cent in West Germany. At the same time, it is possible that the productivity differential is on the decline, owing to the "Americanization" of Europe with its spread of United States companies, the rise of large-scale enterprise, and the emulation of United States methods of production. To the extent to which these factors operate, their effects are aggravated by the devaluations of important European currencies which have raised the external value of the dollar, making foreign goods cheaper and United States goods more expensive (see below, p. 598). Nevertheless, as can be expected, United States costs still are relatively favorable in lines of production into which large amounts of materials enter, while in other cases, where labor cost is a larger proportion of total cost, the situation is less favorable.[2]

Broadly speaking, our exports are by no means low if compared with the period from 1950 through 1956 (see Fig. 58). They seem low only if held against the peak which they reached in 1957, a year in which a number of unusual circumstances were in operation—the Suez crisis and rapidly rising foreign prices—which account for a temporary upsurge of the demand for American goods. After 1957 our exports temporarily declined but they exceed by a substantial margin the amounts attained during the first half of the 1950's. As western Europe continues its rapid economic

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[2] See a study of the National Industrial Conference Board on cost differentials in various industries, referred to in the *New York Times*, May 3, 1959. See also "General Agreement on Tariffs and Trade," *International Trade*, 1957–58 (Geneva, 1959); United Nations Economic Commission for Europe, *Economic Survey of Europe, 1959* (Geneva, 1960).

growth under conditions of prosperity, as foreign import quotas are removed, and as foreign countries have at their disposition increasing amounts of gold and dollar resources (see below, p. 590), it may well be that the benefits of rising incomes will be diffused throughout the world at large and that there will be an increased demand for American goods. As to the cost factor, the United States is not the only country in the world to feel the effects of the wage push, and as prosperity in Europe spreads, it will be all but impossible to resist the demands of the European trade-unions for higher wages.

U. S. MERCHANDISE TRADE

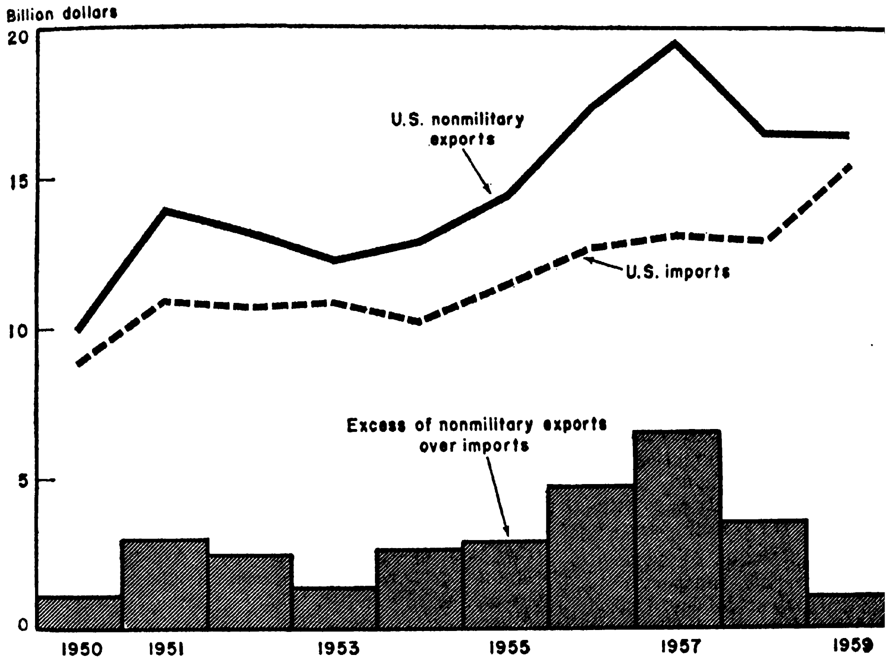

FIG. 58. Throughout the 1950's, our merchandise exports have exceeded our merchandise imports. From U.S. Department of Commerce, *Statistical Reports*, Part 3, No. 60–6, 1959.

Moreover, certain increases in United States imports which have occurred in recent years, especially that of small automobiles, do not result from unfavorable United States cost conditions but from an inadequate anticipation of shifts in consumer demand on the part of the American producers. As the United States automobile industry adapts itself to these shifts and as the snob appeal of certain types of foreign cars diminishes—so many people have them—it is likely that this item, which has been an important factor in raising United States imports during the late 1950's, will diminish in significance, without any additional restrictions on automobile imports.

It is indeed extremely doubtful whether foreign countries will admit large United States exports if the United States were to restrict more severely the entry of foreign goods into her own territory. As things stand, the reciprocal trade agreements program has already been substantially weakened by escape clauses and other loopholes. Protectionism now cuts across the lines of political parties and regions. The textile industry in the South and in New England, the mineral producers in the West, the oil industry in the West and Southwest, they all have pleaded for increased protection against foreign competition. In many instances their pleas are supported by labor unions. The result has been the imposition of informal import quotas on Japanese products, the invocation of tariff quotas on imports of woolen fabrics, and an outright quota regime on lead, zinc, and oil imports.

In the Japanese case, the quota was not established by the United States but by Japan herself in response to American demands, to avert what would have been the first United States import quota on manufactures. The quota applies to cotton textiles and a large number of other products for which minimum prices and maximum quantities are established and enforced with great strictness by Japanese trade associations. This program has been in operation since the mid-fifties. In the case of woolen and worsted fabrics, so-called "tariff quotas" have been imposed annually from 1956 to 1960. Under this arrangement, the tariff is raised on imports in excess of a quota. It is doubtful whether it has been of assistance to the manufacturers because the resulting higher price of woolen goods may have made synthetic products still more attractive to the consumers. The imposition of quotas on lead and zinc in 1958 under the escape clause brought harm to underdeveloped countries such as Mexico and Peru without restoring the health of the domestic industries. It was chosen as an alternative to a subsidization program, which the Congress failed to adopt.

In the case of petroleum, import quotas were imposed, first on a voluntary basis and since 1959 on a mandatory one, to maintain the domestic price stabilization program, which is of long standing and federally sanctioned, in the face of rising imports. Domestic production is restricted by state laws under which the Railroad Commission of Texas—where close to 50 per cent of our oil is produced—and other state authorities determine "allowable" quotas for output. This is designated as a conservation program and it operates on the basis of a Federal Interstate Oil Compact and the Connally "Hot Oil" Act, which outlaws the interstate transportation of petroleum produced in excess of the quota allowed by the state authorities.[3] This program was undermined by unrestricted imports of lower-priced oil from foreign sources.

The import quota on petroleum was imposed under the national security

[3] At the same time the depletion allowance granted by the federal income tax law is designed to encourage expansion of production.

clause. The argument is that a prosperous and expanding oil industry is indispensable for the nation's security. Paradoxical as it may sound, it is indeed true that proved reserves of petroleum increase as the production of the material expands. They amounted in 1960 to approximately fourteen times the annual output, although of course much more is underground in unproved form and the deeper layers are said to be virtually untapped. If the national security requires that the proved reserves of the material be raised, the expansion of production by means of restricting imports—mainly from Venezuela but also from Canada and other places where American policy has been encouraging investments by U.S. companies—is a means to accomplish this objective. It is, however, an extremely costly device that is likely to add billions of dollars to the consumers' oil bill.[4]

In addition to the protective measures introduced in recent years, there is still on our statute book the Buy American Act of 1933, legislation passed during the depression which severely restricts government procurement from foreign sources. As a rule, a domestic supplier is to be given preference, unless the foreign seller offers the merchandise at a price substantially lower than quoted by the domestic seller. Under a Presidential order of 1954, the basic differential is to be one of 6 per cent, that is, a foreign concern will receive the order if its bid is 6 per cent lower than that of a domestic one. If the importer competes with a domestic supplier located in an arear of labor surplus, there is an additional differential of 6 per cent. However, even a larger differential will not help the foreign concern if small buiness or national security is involved.

Another matter about which importers to the United States complain is our customs procedure, which is extremely complex, "deliberately designed," it has been said, "to frustrate foreign sellers." Cases have been cited in which it took an importer three to five years before he knew what amount of duty he had to pay. Many new articles are not specifically mentioned in the tariff schedule of 1930 and are assessed on the basis of "similitude" or "component of chief value." This has caused television tubes to be assessed as household glass ware dutiable at 40 per cent. In these matters the passage of the Customs Simplification Acts of 1953 and 1956 marks the beginning of a needed reform.

The argument of the protectionists in favor of restrictions on imports sometimes is rebutted by the proposal to grant aid to industries, regions, and localities which stand to suffer from an increase in imports. These subsidies presumably would facilitate the transfer of the affected parties to employment along more profitable lines. This argument is a sound one, since the distortion of the allocation of productive resources by tariffs and

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[4] See letter of Professor Alfred E. Kahn to the *New York Times*, April 23, 1959. See also "Outrage in Oil," *Barron's*, March 16, 1959, p. 1, and, on the metals program, "Undermining Enterprise," *ibid*., October 13, 1958, p. 1. On the woolen program, see article by Shirley Scheibla, *ibid*., March 14, 1960, pp. 17 f.

related measures imposes a heavier burden on the community at large than would a subsidy. Aid of this type does not reimburse for the nonmonetary cost of adjustment—moving to new places, learning new trades, etc.—but it may make freer trade more acceptable to the protectionist interests and thus avert restrictions on imports (from underdeveloped countries, for example) that run counter to national policy objectives.[5]

THE ECONOMIC INTEGRATION OF EUROPE

By far the most important matter which has occurred in the foreign trade field in recent years is the movement for economic integration in the form of customs unions and free trade areas which has spread from Europe to other parts of the world. The formation of supranational organizations in connection with Marshall Plan aid and common defense (see below, p. 580) habituated the people of Europe to co-operation in the handling of affairs that hitherto had been regarded as the preserve of each country's national policies. To strengthen western Europe, the United States gave support to the integration movement. Many Europeans themselves were eager to form a "third force" that could hold its own in the struggle of the giants of the East and West. To be sure, integration meant different things to different people. To the "functionalists" in Britain and the Scandinavian countries it meant a multiplicity of limited economic programs without an ultimate political objective, while the "federalists" had in mind the more far-reaching goal of a superstate, possibly a federal union patterned after the model of the United States.

The Common Market. This ultimate political objective, though it has at times been fading into the background in more recent years, was instrumental in the founding of the European Economic Community, known as the Common Market, in 1958.[6] It had been preceded by the supranational coal and steel authority, formed in 1953 and known as Schuman Plan (after Robert Schuman, the French Foreign Minister), which pooled the respective resources of six countries and established free trade for steel.[7] A

[5] Aid to adversely affected industries has been endorsed by the Senate Small Business Committee, *Report* of August 23, 1960; it was provided also in a Senate amendment to the 1958 Reciprocal Trade Agreement Extension Act but the provision was rejected by the conference committee.

[6] In addition to the literature listed in the Bibliography, p. 583, see a series of pamphlets by Miriam Camps, all published by the Center of International Studies at Princeton University: *The European Common Market and American Policy* (1956); *Trade Policy and American Leadership* (1957); *The European Common Market and Free Trade Area: A Progress Report* (1957); *The First Year of the European Economic Community* (1958); *The Free Trade Area Negotiations* (1959); *Division in Europe* (1960).

[7] See John Goormaghtigh, "European Coal and Steel Community," *International Conciliation*, No. 503 (May, 1955); William Diebold, Jr., *The Schuman Plan* (New York: Frederick A. Praeger, Inc., for Council on Foreign Relations, 1959); Louis Lister, *Europe's Coal and Steel Community* (New York: Twentieth Century Fund, 1960).

still earlier attempt, Benelux, was to bring about the complete economic integration of the region comprising Belgium, the Netherlands, and Luxembourg, with free trade among them and a common outer tariff.

The members of the Common Market are identical with those of the European Coal and Steel Community and consist of France, West Germany, Italy, and the three Benelux countries. The Common Market aims at the gradual establishment of a customs union among its members, that is, their internal trade barriers are to be removed by stages while at the same time their trade with the outside world is to be placed under a common tariff.[8] To make such a common external tariff feasible, the economies of the member countries are to be "harmonized" with respect to production costs, social services, and other factors determining their competitive capacity, and this in turn is to be facilitated by the free flow of capital and labor among the members.

Jointly with the Common Market and among the same members there was also established Euratom, the European Atomic Energy Community. Reflecting the high hopes which were placed in the early utilization of nuclear energy at that time, this organization was to promote the joint production and distribution of such energy for peaceful uses.[9]

The Common Market, the Coal and Steel Community, and Euratom have a joint Court of Justice, Council of Ministers, and a Parliamentary Assembly. The executive of the three is still divided but there are plans for its early consolidation. The Assembly is composed of 142 members appointed by the Parliaments of the member states. A change of this, with an election by direct universal suffrage, is planned for the near future.[10]

The Projected Free Trade Area. Britain did not initially join the Common Market nor its two sister organizations as she was reluctant to link her fate with an organization that was considered by many to contain the germ of a future European superstate. As she maintains a preferential system of trading with the other members of the British Commonwealth—allowing, for example, the duty-free entry into Britain of beef from Australia, butter from New Zealand, fruit from South Africa, and tea from India and Ceylon—it was also considered impossible to reconcile this system with the com-

[8] See General Agreement on Tariffs and Trade, *The Possible Impact of the European Economic Community, in Particular the Common Market, Upon World Trade* (Geneva, 1957); Political and Economic Planning, *Tariffs and Trade in Western Europe* (London: Allen & Unwin, Ltd., 1959).

[9] See Ben T. Moore, *Euratom: The American Interest in the European Atomic Energy Community* (New York: Twentieth Century Fund, 1958).

[10] There is also a European Investment Bank with an authorized lending capacity of $2.5 billion and an Overseas Development Fund. Neither of these is overly active. As the bank operates in a region with highly developed banking facilities, the demand for its loans has been small. Three of the first four of these were placed in Italy. By March 13, 1960, the Development Fund had approved projects involving a total expenditure of no more than $52 million for underdeveloped countries, mainly in French Africa and much of it for social services.

mon external tariff which the Common Market was gradually to attain. Had Britain then joined, her high standard of living and superior social services probably would have exerted a powerful "demonstration effect" on her associates on the continent, raising the production cost in these countries.[11] Had she joined, it would have been Britain rather than the continental countries that would have attracted American industry to establish branch plants and subsidiaries (see below, p. 576).

Instead, Britain promoted the organization of a Free Trade Area, to be joined by the members of the Common Market and those countries of free Europe that had remained outside of the Common Market: Britain herself, the Scandinavian countries, Switzerland, Austria, and others. The Free Trade Area, unlike the Common Market, was not designed as a customs union. It was to eliminate tariffs between the members but leave intact each member's freedom to set its own tariff against the outside world. Also, the Free Trade Area had no goal of ultimate political union.

Such an arrangement would have widened the internal free trade area of the Common Market countries, which would bring into the organization their common external tariff—not accomplished yet, but the eventual aim. The latter, in turn, would differ from the external tariffs of the other members of the Free Trade Area, each being allowed to set its own.

The formation of the Free Trade Area was defeated by France, by tradition a highly protectionist country, which by joining the Common Market had started out on a new venture whose risk she did not want to increase by enlarging the number of countries that could flood her market with goods. These fears were aggravated by the fact that many prospective members of the Free Trade Area—Sweden, Denmark, and Switzerland, for example—had tariffs that were lower than either those of France or of the Common Market. They would import low-priced goods from the outside world, so the French reasoned, and then unload them on France. However, until the external tariff has become equal, this so-called "problem of origins" is an acute one also for the members of the Common Market, since Belgium and the Netherlands have relatively lower tariffs than the other members. As a solution of this problem was found for the Common Market by means of detailed regulations, something similar could have been attempted also for the Free Trade Area.

Furthermore, France considered it inopportune to join a Free Trade Area whose members, unlike those of the Common Market, would be under no duty to harmonize the factors determining their cost of production. She also desired wider escape clauses to cope with potential difficulties. Last but not least, it is doubtful whether she wanted to see her new relation with West Germany disturbed by the appearance of a strong outsider.

The European Free Trade Association. The failure of the Free Trade Area led to new deliberations among Sweden, Switzerland, and Austria—

[11] "Into the Common Market," *Manchester Guardian Weekly*, February 21, 1957.

the "neutrals" which could or would not join the Common Market[12]—and Britain, Denmark, Norway, and Portugal. These countries adopted in 1959 a Swedish plan for a smaller European Free Trade Association (EFTA) which was patterned after the Free Trade Area, providing for the abolition of internal tariffs among the members but without a common external tariff.[13] Europe thus was divided into two trading blocs, the Common Market, or "Inner Six," with some 169 million inhabitants in Europe, and the EFTA, or "Outer Seven," with some 89 million (see Fig. 59).[14]

Effects of the European Trading System. As has been noted, a trading bloc such as the Common Market or the European Free Trade Association is by its very nature an instrument of discrimination against outsiders. It establishes an exclusive and preferential system for the trade among its members, which is to be free, whereas imports from the rest of the world are dutiable either at common tariff rates as under the fullfledged customs union of the Common Market or at the rates which the individual members of EFTA see fit to impose. The full extent of discrimination will emerge only gradually as the internal tariffs are lowered by stages while an external tariff remains. Once the process is completed, there will be little doubt about its nature. Meanwhile the Common Market countries have removed some elements of exclusiveness from the arrangement by extending to other countries some concessions which they grant to each other. They also have reduced their external tariffs in the expectation that other countries will reciprocate. Nevertheless, the economic position of a country that is not a member of a preferential system is bound to weaken. This applies equally to outsiders which are not a member of either bloc, and to the members of one bloc in relation to the other. For example, a member of the Common Market, say West Germany, will operate under a disadvantage in the Scandinavian markets, which are in EFTA, whereas a member of the Outer Seven, say Britain, will face similar difficulties when selling to Germany, France, or other members of the Common Market.[15] Unfavorable is also the position of the non-European producers of raw materials and foodstuffs, especially since the present as well as some former colonies of the Common Market countries—an additional 53 million people—are associated with the Common Market and will be able to send their goods free of duty into it.

For political and military reasons, virtually all European countries

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[12] See "Europe's Outsiders," *Economist*, February 13, 1960, pp. 598 ff.

[13] See *EFTA: The Stockholm Convention and Freer World Trade* (published by the Governments of the Member Countries, 1959); Christopher Hollis, "The Swedish Plan," *Spectator*, June 12, 1959, pp. 838 f.; "Free Trade Club," *Economist*, November 28, 1959, p. 837.

[14] Michael Heilperin, "Europe at Sixes and Sevens," *Fortune*, October, 1959, pp. 148 ff.

[15] If as a result of these difficulties British exports to West Germany are displaced by, say, Italian ones, this is known as "deflection" or diversion of trade.

maintain agricultural establishments that are highly protected against foreign competition (see Fig. 60). The Outer Seven exempted agricultural

EUROPE'S TRADE BLOCS

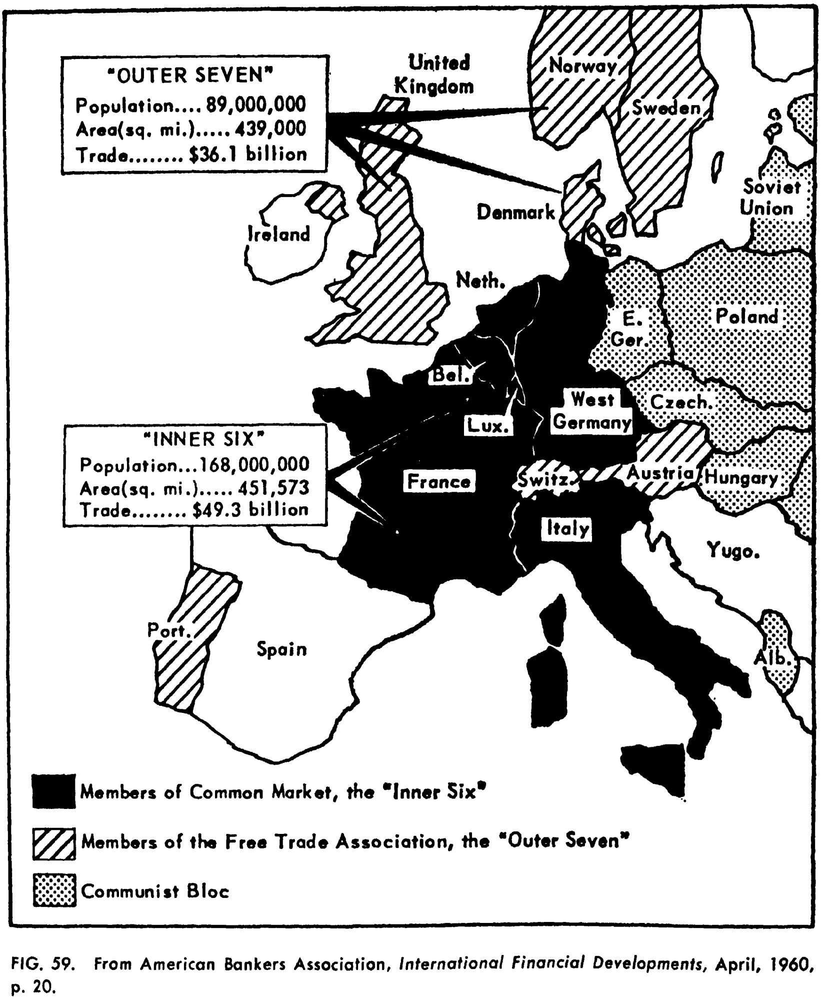
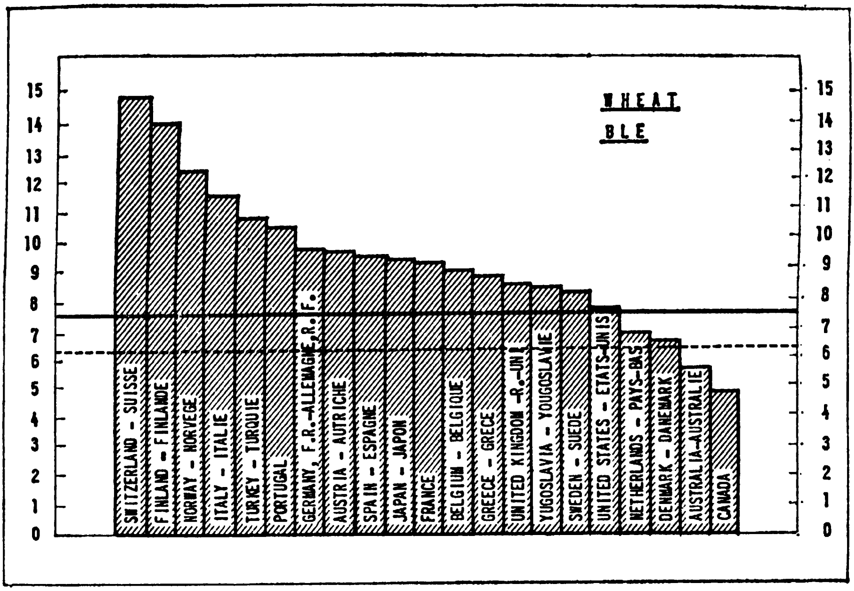


FIG. 59. From American Bankers Association, *International Financial Developments*, April, 1960, p. 20.

products altogether from the projected free trade among themselves. The Common Market countries intend to promote and integrate their agricultural economics, one country specializing along one line and another along a different one, to the deteriment of Australia, Canada, and the United States.

The division of free Europe into two rival trading blocs has become a threat to the political unity of the continent. Morever, just as the Common

PRICE OF WHEAT (AVERAGE 1954/55 AND 1955/56)
RECEIVED BY FARMERS
(Dollars per 100 kgs.)



——— Average World Import Price.
...... Average World Export Price.

FIG. 60. Agricultural protectionism is still the practice in many parts of the world, especially in Europe, where farmers are enabled to overcome the regional disadvantages of, say, wheat production by high domestic prices and seclusion from the world market. Source: Food and Agriculture Organization of the United Nations. From General Agreement on Tariffs and Trade, *Trends in International Trade,* 1958, p. 85.

Market operates to the economic disadvantage of Britain, so does the Outer Seven hamper West Germany's trade drive. There is a good chance that sheer self-interest will put an end to the dual system. Also, France has recovered from the economic stagnation which has paralyzed her for so long. The goal of eventual political union has been relegated to the background. While these factors would favor a consolidation of the two trading blocs, a number of obstacles will first have to be overcome. Before Britain could join the Common Market, she would have to find a way out of the EFTA, whose neutral members would not find it easy to follow her. Arrangements would have to be made—and they should not prove unduly difficult—to prevent the duty-free re-exportation into the Common Market of goods admitted into Britain under Commonwealth preference.[16]

[16] If a way could be found to associate the Commonwealth with the Common Market—as was done in the case of the Common Market countries' colonies—this would require rather severe shifts of the Common Market countries' agricultural economies.

The gradual reduction and the hope for the complete elimination of the trade barriers within the Common Market has given an envigorating stimulus to the economies of the member countries. The removal of obstacles to their internal trade will open up opportunities for mass production and specialization similar to those existing in the United States. It is doubtful, however, whether the economic establishment of the Common Market will ever rival that of the United States, which is endowed with a superior raw materials base.[17] Nevertheless, the removal of trade barriers among the members is bound to increase their trade, offsetting the loss of actual or potential trade with outsiders. As enterprise caters to a larger market, it can utilize the economies of scale and operate more efficiently. Indeed, the trade of the Common Market countries with the outside world has grown, but not nearly as rapidly as their trade among themselves. As this happened in the face of tariff cuts that were still negligible, it may have been the result of a psychological anticipation of free trade rather than of free trade itself. Many business concerns in the Common Market countries laid the ground for the expected expansion of future trade by joining with each other in mergers, licensing agreements, and in a multiplicity of other arrangements dividing sales areas and eliminating competitive struggles in various ways. An example is the agreement between Alfa Romeo and Renault, the two great automobile producers, under which Renault Dauphines will be built in Italy and Alfa Romeos assembled in France. In the present environment of rapid economic expansion and pronounced prosperity it may be hoped that these agreements will not be a cloak for restrictive practices under cartels, so characteristic of European industry before World War II.

Another problem with which the Common Market problems will have to cope is their surplus of coal. This problem is aggravated by the availability of coal at competitive prices from the United States, which subsidizes her merchant marine. The difficulties of the European coal economy will be compounded once low-cost petroleum from North Africa is pumped via a projected pipeline into the heart of the continent.

The rapid pace of economic growth in western Europe, it is hoped, will so much strengthen the economy of the region and raise its purchasing power that this will benefit in the long run even the economies of outside countries that are discriminated against.

Meanwhile the European Common Market is emulated in other parts of the world where attempts are made at the formation of similar blocs. Argentina, Brazil, Chile, Mexico, Paraguay, Peru, and Uruguay have signed the Montevideo Treaty of 1960, which provides for a Latin American Free Trade Association. The early ratification of the treaty is expected. The arrangement provides for the gradual removal, within twelve years, of restrictions on the trade among the members. Unlike the European

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[17] See S. Dell, "Economic Integration and the American Example," *Economic Journal*, March, 1959, pp. 39–54.

Common Market, the Latin American Association is not a full-fledged customs union, and the members retain their own external tariffs. Moreover, while the European Common Market countries did already some 25 per cent of their total trade with each other before the formation of the trading bloc, the Latin American economies are more competitive than complementary, and intra-Latin American trade constitutes only 9 per cent of the total trade of the Latin American countries. Nevertheless, the formation of the Latin American Free Trade Association is expected to enlarge the market for each country's manufacturing industry, allowing it a greater measure of specialization and large-scale production. The ultimate goal is a more complete economic integration of the members, with their respective economies attaining a higher degree of complementarity.

In Central America a number of steps have been taken toward the goal of regional integration. Production of the five Central American Republics—Costa Rica, El Salvador, Guatemala, Honduras, and Nicaragua—is mainly agricultural, with bananas, coffee, and cotton standing out among the products of the region, and interregional transportation is highly inadequate. As a result, only about 4 per cent of their total exports are intraregional. Trade within the area is to be strengthened in consequence of two measures signed in 1958. The "Agreement on the Regime for Central American Integrated Industries" aims at the establishment of jointly planned and complementary "integrated industries," whose products will be admitted free of duty by the members. The "Multilateral Treaty on Central American Free Trade and Economic Integration" calls for the gradual removal of trade barriers and eventually for a common external tariff. The two measures have been ratified by all signers except Costa Rica, and the trade treaty is already in force. To accelerate the establishment of a common market, El Salvador, Guatemala, and Honduras signed and ratified in 1960 a "Tripartite Treaty of Economic Association," which immediately freed the trade in a number of commodities and provided for the gradual elimination, within five years, of restrictions on the trade in others. This treaty also established a joint Development and Assistance Fund to facilitate adjustment and the financing of development projects.[18]

In Africa, a twelve-nation conference of independent states, which convened in Addis Ababa in 1960, took a stand in favor of a preferential system of tariffs. In South East Asia the movement in favor of Seafet—a South East Asia Friendship and Economic Treaty with preferential arrangements—has grown in response to the European precedent.[19] While the West extends economic aid to underdeveloped countries, the need for such aid has become more urgent on account of discrimination against imports from underdeveloped countries not associated with the Common

[18] United Nations, *The Latin American Common Market* (New York, 1960); "The Emerging Common Markets in Latin America," Federal Reserve Bank of New York, *Monthly Review*, Vol. XLII, No. 9 (September, 1960), pp. 154–60.

[19] "A Common Market in Asia?" *Economist*, June 11, 1960, pp. 1074 f.

Market. Thus far the Common Market countries have contributed little aid in the form of grants to the underdeveloped world, their resources being absorbed by the domestic investment boom. The underdeveloped countries are so much disturbed by the rise of the European trading blocs that they would form a single one of their own if they were not kept apart from each other by the fact of widely separated geographic location. It is, however, by no means impossible that they eventually will launch such an organization in spite of this obstacle.

As western Europe proceeds with economic integration, the dividing line that separates it from the satellites of Soviet Russia in eastern Europe becomes ever more sharply drawn and the task of dislodging them hardens, dimming the hope for their liberation.[20]

Although the basic principle of GATT is violated by the operations of preferential trading blocs, GATT also creates an opportunity to avert the worst excesses of discriminatory trading by facilitating the extension to third parties of the concessions which the members of the bloc grant to each other. The third parties in turn will have to make reciprocal concessions. If GATT is strengthened, it may turn into an instrument for making generally available what otherwise would be exclusive and preferential concessions, thus allowing the whole free world to benefit from freer trade.

Effects on United States. The short-run economic consequences of the Common Market for countries such as Canada and the United States are unfavorable since the entry of their goods into the Common Market meets greater obstacles than are met by goods passing from one member country to another. This applies, first of all, to agricultural products, including wheat and tobacco, of which the United States produces a surplus.

Moreover, there is apprehension that low wages and the economies resulting from an ever-widening market are likely to turn the Common Market countries into formidable rivals of United States exporters to third markets. European prosperity and the rise of the Common Market have been responsible for a wholesale migration of American manufacturing concerns to the continent of Europe.[21] They were followed by a smaller

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[20] The policy of the Soviet Union in the matter of the two blocs has not been a uniform one. Whereas it denounced in 1957 the formation of the Common Market, in 1959 it requested the Outer Seven to observe most-favored-nation treatment in accordance with trade agreements, and to extend to the Soviet Union the benefits granted by the members to each other.

[21] See John H. Dunning, "United States Overseas Investment and European Economic Integration," *National Provincial Bank Review*, May 1960, pp. 8–17; Arthur Bettauer, "The Importance of the European Common Market to U.S. Business," *The Price-Waterhouse Review*, December, 1958, pp. 1–6; articles in the *Wall Street Journal*, July 12, 1957, April 30, December 3, 9, 16, 29, 1959, January 4, 1960; "Foreign Commerce Study: U.S. Trade and Common Market," *Hearings* before the Senate Committee on Interstate and Foreign Commerce, 86th Cong., 2nd sess. (Washington, D.C.: U.S. Government Printing Office, 1960). This document contains reproductions of the complete surveys of the movement of U.S. firms made by the Economics Department of McGraw-Hill.

number of British firms. This migration has bypassed Britain, but if Britain had been initially a member of the Common Market, American industry probably would have preferred to settle there, because of duty-free Commonwealth imports and for other reasons. With the emergence of the EFTA, American firms may also feel attracted to these countries, having then to maintain a dual system of subsidiaries in Europe.

By establishing subsidiaries on the continent of Europe, the United States companies hope to acquire a share in the expanding markets of Europe without having to expose their goods to discriminatory treatment at the borders of the Common Market countries. Costwise they also expect to be in a better competitive position when trading with nonbloc countries than they would if their goods were produced in the high-wage economy of the United States. Eventually, some of the goods produced by American companies in Europe will find their way to the United States, there to compete with domestic products. Plans along this line are in advanced stages in the field of cigarette lighters, portable typewriters, small tractors, automation office machinery, small outboard motors, etc.

The movement of United States capital to Europe occurs at a time when the United States balance of international payments is under great strain, and it constitutes an additional element of disequilibration (see pp. 591 ff.). The question may also be raised whether the gain to the United States economy from the remission of the profits of the foreign subsidiaries of American firms is as large as would be the benefits to the United States economy which are foregone by constructing plants and producing goods abroad rather than at home. It may well be that increased domestic investment in new plants and increased production for home or foreign use adds more to the national income and employment than do the profits of foreign subsidiaries.[22]

Leading spokesmen of the United States automobile, steel, farm equipment and office machine industries have at times been among the most vigorous supporters of more liberal American commercial policies. However, as their efforts had only a limited success at home and as the trading blocs have risen in Europe, American industry feels that it is compelled by circumstances which it has been unable to alter to establish productive enterprises abroad rather than at home if it wishes to sell in important foreign markets.

The emergence of rival trading blocs in Europe has again created an

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[22] For a British discussion of this problem, see a highly technical article by A. E. Jasay, "The Social Choice between Home and Overseas Investment," *Economic Journal*, March, 1960, pp. 105–13. For less technical presentation, see Andrew Shonfield, *British Economic Policy Since the War* (Baltimore, Md.: Penguin Books, 1958), pp. 107 ff.: John Strachey, *The End of Empire* (New York: Random House, 1960), pp. 177 ff. See also *Hearings* before the Senate Committee on Interstate and Foreign Commerce, April 26, 1960, on the United States balance of payments problem and foreign trade.

opportunity for the United States to bring the rivals together and lead them into a wider movement aiming at freer trade not only within regions but throughout the free world. The Soviet economic threat, which has been one of the factors responsible for the rise of trade blocs, will be much more effectively contained by such a broader movement (see pp. 544 f.). The protectionist interests within the United States are so strong, however, that it is doubtful whether such a development will take place. An ominous consequence of the rise of American subsidiaries in Europe is the vested interest which thereby is created in the perpetuation of preferential and exclusive systems which now protect these enterprises against competition from the United States as well as from other nonbloc countries. As new trade patterns become established under this protection, the resistance of American industry to a general liberalization of trade may spread into the sector traditionally opposed to protectionism, a development that may be checked at best by the desire of the foreign subsidiaries to sell in the United States market.

Appendix: European Organizations. In addition to those discussed here, Europe abounds with regional and international organizations, often known by their initials, and it may be convenient to conclude this chapter with a survey of these organizations and their functions.[23] As political and military organizations have prepared the way for economic integration, they will be included here, as will be a few that are active in international finance rather than trade, or in both fields (see Tables 34 and 35).

In the political field, there is a Council of Europe, which is composed of the representatives of the parliaments and legislative assemblies of some sixteen countries. This organization was founded in 1949 and it meets every year in Strasbourg, offering the members an opportunity for an exchange of thoughts. Contacts established through the Council and the atmosphere created by it were helpful in the formation of the Common Market and of the European Coal and Steel Community. As these organizations provide for a large assembly, the assemblies of the Council no longer offer as significant a meeting place as they did in earlier years.[24]

In the defense field, there is NATO, the North Atlantic Treaty Organization, composed of the United States, Canada, and thirteen European countries. This was founded in 1949 to implement the North Atlantic Treaty for common defense.[25] Another organization in the defense field is the Western European Union, which was formed in 1954 after the failure of the projected European Defense Community (EDC) which was to unify

[23] For a more complete survey see Political and Economic Planning, *European Organisations*, 1959 (London: Allen & Unwin, 1959); A. H. Robertson, *European Institutions* (London: Stevens & Son, 1959).

[24] "Europe Without England," *Spectator*, May 1, 1959, p. 603.

[25] Ronald S. Ritchie, *Nato: The Economics of an Alliance* (Toronto: Ryerson Press for the Canadian Institute of International Affairs, 1956); M. Margaret Ball, *Nato and the European Movement* (London: Stevens, 1959).

the military establishments of Britain, France, Italy, West Germany, Belgium, Luxembourg, and the Netherlands. The Western European Union does not have any important functions but it may possibly be revived to provide a common meeting place for Britain and the Common Market countries.[26]

TABLE 34

EUROPEAN INTEGRATION: LIST OF ORGANIZATIONS

Organization	Year of Establishment	Functions
Bank for International Settlements	1930	Clearing for OECD countries' trade debts, etc.
Benelux	1944ff.	Customs union of Belgium, the Netherlands, and Luxembourg.
Council of Europe	1949	Political.
Common Market (*See* European Economic Community).		
European Atomic Energy Community (Euratom)	1958	Production and distribution of nuclear power for industrial uses.
European Coal and Steel Community	1953	Integration of coal and steel economies.
European Economic Community	1958	Customs union.
European Free Trade Association (EFTA)	1959	Removal of internal trade barriers.
European Monetary Agreement	1958	Clearing of trade debts.
North Atlantic Treaty Organization (NATO)	1949	Common Defense.
Organization for Economic Co-operation and Development (OECD)	1960	To co-ordinate economic growth, aid to underdeveloped countries, and trade policies.
Outer Seven (*See* European Free Trade Association).		
Schuman Plan (*See* European Coal and Steel Community).		
United Nations Economic Commission for Europe (ECE)	1946	Principally research.
Western European Union	1954	Military.

In the economic field, the most comprehensive organization in terms of free world membership is the Organization for Economic Cooperation and Development (OECD) which was formed in 1960 to succeed the Organization for European Economic Cooperation (OEEC).[27] The latter

[26] "A Ghost Walks," *Economist*, December 3, 1959, p. 950.
[27] "Requiem for OEEC," *Economist*, April 23, 1960, p. 317.

TABLE 35

MEMBERSHIP IN EUROPEAN ORGANIZATIONS

	OECD	Council of Europe	NATO	Western European Union	EFTA	Common Market*	Benelux
Belgium	x	x	x	x		x	x
France	x	x	x	x		x	
Italy	x	x	x	x		x	
Luxembourg	x	x	x	x		x	x
Netherlands	x	x	x	x		x	x
W. Germany	x	x	x	x		x	
Britain	x	x	x	x	x		
Denmark	x	x	x		x		
Greece	x	x	x				
Iceland	x	x	x				
Norway	x	x	x		x		
Portugal	x		x		x		
Turkey	x	x	x				
Austria	x	x			x		
Ireland	x	x					
Sweden	x	x			x		
Switzerland	x				x		
Spain	x						
Canada	x		x				
United States	x		x				

* Also Euratom and European Coal and Steel Community.

had been established in 1948 to administer aid under the Marshall Plan.[28] OECD's members are the United States, Canada, eighteen European countries, and a representative of the Common Market. Thirteen of the European members are affiliated with either one of the two trading blocs; in addition to these OECD links such countries as Spain, Greece, Turkey, Ireland, and Iceland, which are not members of the rival blocs. OECD has three functions: the co-ordination of economic policies for economic growth, of economic aid to underdeveloped countries, and of trade policies. The second and third functions are controversial. The underdeveloped countries are not represented in the organization that is to co-ordinate aid for them, and as regards trade, the nonmember countries outside of Europe may have to face the concerted action of the OECD countries when dealing with them in GATT negotiations. The inclusion of trade in the jurisdiction of OECD was not welcomed by the United States and France but the

[28] See *At Work for Europe*. An Account of the Activities of the Organization for European Co-operation, 3rd ed. (Paris, 1956); Eric Roll, "Ten Years of European Co-operation," *Lloyds Bank Review*, April, 1958, pp. 27–40.

smaller countries, especially those in the Free Trade Associaton, argued in its favor. The United States representatives were aware of the fact that OECD would have to be ratified by a Joint Resolution of the Congress, which might look with disfavor upon an organization with functions in the field of international trade. France feared that the inclusion of trade might become an opening wedge for the resumption of a drive for a Free Trade Area.

OEEC has sponsored a European Monetary Agreement and a European Fund. The European Monetary Agreement took over the functions of the European Payments Union in 1958, when the clearing of the trade debts of the member countries lost much of its importance owing to their currencies' becoming convertible. The European Fund has a capital of $600 million—over one half of it still subject to call—for granting short-term credit to members that are in temporary balance of payments difficulties.

Both the European Monetary Agreement and the European Fund are administered by the Bank for International Settlements—formerly for the OEEC and now for the OECD. This bank, which is located in Basle, Switzerland, is an early organization in the field of international finance which originally was established to facilitate World War I reparation payments. Besides its work for the OECD it still has some functions arising from these, as well as other work for the European Coal and Steel Community.[29]

Except for GATT, of which Czechoslovakia and since 1959 also Poland is a member, none of the organizations mentioned so far contains members of the Soviet bloc. When the Marshall Plan for economic aid to Europe was announced in 1947, eastern Europe was not excluded, but the Soviet Union refused to participate in the program and neither she nor her satellites shared in the European recovery projects of OEEC and its predecessor organizations. A meeting place for the East and the West is provided, however, by the United Nations Economic Commisson for Europe (ECE). This organization as such is not a policy-making body, and its principal accomplishments have been in the field of research.[30]

SUMMARY

International economic transactions differ from domestic ones in that they are related to the movements of goods or persons over national boundaries. The need for such transactions arises from economic and political considerations. The economic theory of foreign trade does not take into account the political objectives which are of such great impor-

[29] See the bank's *Annual Reports*, which are an important source of world-wide financial data.

[30] ECE publications include annual *Economic Surveys*. About the work of ECE during 1946 to 1954, see David Wightman, *Economic Co-operation in Europe* (London: Heineman, 1955).

tance in the field of international relations. Nor does it adequately consider the political obstacles to internal adjustments required under free trade.

The flow of international trade is impeded by various restrictions: tariffs, quantitative controls, and exchange regulations. Quantitative controls and exchange regulations often entail discrimination against certain countries, as do customs unions and free trade areas. The United States commercial policy is based on the principle of equal treatment of all countries, multilateralism, and most-favored-nation treatment, but mainly for political reasons foreign customs unions and free trade areas have been found acceptable. Since 1934 the United States has promoted a reciprocal trade agreements program, culminating in a General Agreement on Tariffs and Trade in 1947. United States exports customarily exceed imports. Canada is our most important trading partner. Our leading imports are newsprint, coffee, and petroleum, while manufactured articles are our principal export item.

A new phenomenon of great importance in the field of international trade is the rise of trading blocs in Europe and elsewhere. It has promoted the migration of American industry to western Europe and poses problems to the underdeveloped countries as well as to other suppliers of raw materials and agricultural products.

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For the current study of international economic affairs, the *Annual Reports* of the Bank for International Settlements, Basle, Switzerland, are of much help, as are also the annual *Economic Surveys* of the United Nations Economic Commission for Europe, and the annual *International Trade* published by the General Agreement on Tariffs and Trade. The two last-named publications are available from the International Documents Service, Columbia University, New York.

STUDY QUESTIONS

1. How can international economic relations be utilized for the realization of political objectives?
2. What is meant by "imperialism"?
3. What are some important exports of the United States?
4. Who are our most important partners in international trading?
5. Trace the evolution of a country from the position of immature debtor to mature creditor.
6. Why are multilateral trade relations economically more advantageous than bilateral trade relations?
7. What is meant by "quantitative restrictions on trade"?
8. What is meant by "most-favored-nation treatment"?
9. Why has the trade-agreements program lost much of its effectiveness?
10. What are peril-point provisions?
11. What is the significance of the General Agreement on Tariffs and Trade?

12. Which two measures in the field of international economics were first promoted by the United States but failed eventually of ratification?
13. Trace the history of the European Common Market.
14. What are some undesirable effects of customs unions and similar trading blocs?
15. How are United States exports affected by the rise of trading blocs in Europe?
16. What attempts have been made by underdeveloped countries to form customs unions and other trading blocs?
17. Why has Britain found it difficult to join the European Common Market?
18. Why would the "neutral" countries find it difficult to join the European Common Market?
19. What is meant by "diversion of trade" in conjunction with trading blocs?
20. What are some international organizations in the field of economics, and what are their functions?

Chapter 22 — PROBLEMS OF INTERNATIONAL FINANCE

FOREIGN EXCHANGE AND THE BALANCE OF PAYMENTS

Foreign Exchange. Problems of foreign exchange arise from the fact that the various countries have different monetary units. Prices of foreign commodities are quoted in terms of foreign currencies. These, in turn, command a certain price in terms of the domestic currency. The price for a unit of foreign money is called the "rate of exchange." If increasing quantities of goods are imported from abroad, there will be increased demand for foreign exchange to pay for them; and its price will rise. This will tend to discourage the volume of imports, because as more dollars are required to buy a unit of the foreign currency in which the price of imported goods is expressed, imported goods will be more expensive in terms of domestic money.

Under the gold standard, there were limits to this depreciation of the home currency and appreciation of the foreign money, since the units of both could be exchanged for a given quantity of gold. If the price of the foreign currency rose too high, gold would be bought and shipped abroad in payment of the purchase price for imported goods. This transaction would deplete the gold stock of the importing country and cause a contraction of money and credit, with attending decline of the domestic income flow and price level.

Abroad the influx of gold would have the opposite effects. In this situation the lower price level at home would operate against imports and encourage exports, whereas abroad the enlarged income flow and higher price level would cause imports to rise and exports to fall. There was thus a presumably self-regulatory mechanism at work that would restrain excessive imports.

In the absence of the gold standard, similar effects may be produced as the result of sales and purchases of foreign exchange by the banking system. In the exporting country, incomes rise in direct consequence and by the amount of additional exports; and a further rise in incomes is induced by the multiplier. Part of the higher income will be spent on additional imports, and another part will be used for bidding away goods that otherwise would be exported.

While the flow of excessive imports or exports can be stemmed by appropriate changes in incomes or prices, all this would take place under stable rates of exchange. If rates of exchange are allowed to vary, excessive imports can be discouraged and exports encouraged by raising the price of foreign exchange in terms of the domestic currency; while excessive exports can be restrained and imports encouraged by raising the price of the domestic currency in terms of foreign exchanges. The former operation is called "exchange depreciation"; the latter, "appreciation." Instability of foreign exchange rates is thus an alternative to instability of price and income levels.

During the Great Depression, exchange depreciation was attempted on a substantial scale by many countries. By reducing the value of their money in terms of foreign currencies, they hoped to stimulate exports. If they succeeded, they caused income deflation abroad. A policy of exchange depreciation may contribute to the re-establishment of an international equilibrium only if there has existed a disparity of the cost and price levels between countries. Otherwise, exchange depreciations means "exportation of unemployment," a measure against which the other countries will retaliate, perhaps through competitive exchange depreciation. Thus if a depression is world-wide, the attempt to export unemployment by means of exchange depreciation, undertaken more or less universally, is liable to prove self-defeating.

Countries which find themselves with an export surplus, of such dimensions that further purchases by foreign customers are expected to lead to an undesirable inflationary increase of the domestic income flow and price level, may apply the opposite policy. They may appreciate their exchange. As their currency will then be more expensive to foreigners, and prices expressed in foreign currencies will involve reduced proceeds in domestic money to exporters, exports will be discouraged. Imports will be stimulated, because by the same token foreign goods will appear cheaper in domestic money. The whole policy may be called one of "exporting an inflation." An example of this policy is provided by Canada, which, after having seen her export balance increase seventeenfold from 1940 to 1945, raised the value of the Canadian dollar in terms of the United States dollar by about 10 per cent.

Whether, under given circumstances, exchange depreciation is preferable to a reduction of the domestic cost and price level is a question

that has been widely debated. Deflation of the domestic cost and price level is a painful process, which under modern conditions is liable to lead to a further spread of unemployment. But exchange depreciation is often considered as an unfriendly act by other countries—competitors and suppliers—and it is likely to promote retaliation that in the end will defeat the purpose of the measure. The uncertainty created by apprehension of future depreciation will tend to contract trade. For these reasons attempts have been made on a world-wide scale to relieve countries of the need for aggressive exchange depreciation. These measures are discussed in conjunction with the organizations active in the field of international finance.

The Balance of Payments. In the foregoing discussion, reference was made to "excessive" imports and exports. The meaning of this term will now be more fully explored. It can be best understood with the help of a scheme generally used in international economics, the balance of payments. The balance of payments is composed of credits or receipts and debits or payments. Credits or receipts arise from transactions that create claims against foreigners, while debits or payments reflect transactions creating claims of foreigners against people at home.

Important among the credits are merchandise exports; and among the debits, merchandise imports. The difference between these two items is often referred to as "balance of trade." The balance of trade is active if merchandise exports exceed merchandise imports and passive if merchandise imports exceed merchandise exports. The balance of trade thus rarely shows a "balance" of the two items of which it is composed. In the balance of payments, however, credits are always equal to debits. Apart from the balance-of-trade items the balance of payments contains so-called "service items" or invisible exports and imports—receipts and expenditures created in conjunction with foreign investments, shipping, banking, insurance, tourists, etc.—imports and exports of gold, and short- and long-term capital movements. If commodity imports exceed exports or, in other words, if the balance of trade is passive, the excess of imports—debits—is offset by exports of gold or of securities—IOU's—transactions that are reflected in corresponding entries in the credit column either in the form of gold exports or inward movements of capital. It is for this reason that debits and credits are always equal. If debits—merchandise imports—increase, there may be a corresponding influx of long-term loans or an export of gold. But if neither takes place the short-term debt increases automatically, balancing the increase in debits.

We are now in the position where we can determine when merchandise imports are "excessive." They are so if they require equalizing exports of gold, reductions in short-term balances held abroad, or increases in short-term loans from foreigners. These short-term capital

movements or equalizing gold movements are what is known as "deficit" in the balance of payments. As long as they occur, the balance of payments is said to be unfavorable or in disequilibrium. By this is meant that a condition prevails which cannot persist indefinitely. It calls for adjustments; and these, as has been seen, can be produced by a reduction of domestic incomes and/or prices by exchange depreciation.

The same effect, a disequilibrium of a country's balance of payments, may also be produced as a result of unilateral contributions—aid to foreign countries—that are not offset by a merchandise surplus. To the extent to which they are not so offset, they are balanced by gold exports and increases in short-term debts to foreigners. As will be seen later, the disequilibrium of the United States balance of payments is of this character.

The preparation of an estimate of a country's balance of international payments is no easy matter. It brings together, from a great variety of diverse sources, information that touches on all aspects of a country's international economic relations—information which often is elusive and which tends to escape the statistical investigator. Compiling an estimate of a country's balance of international payments involves a great deal of statistical detective work. No wonder then that often there are large "errors and omissions" which may detract from the reliability of the estimate.

The nature of disequilibrium in a country's balance of payments can be illustrated with the help of a simple example, the balance of payments of, say, Denmark for the year 1950, which is shown in Table 36. The table

TABLE 36

THE BALANCE OF PAYMENTS OF DENMARK, 1950
IN MILLIONS OF DANISH KRONER*

Item	Receipts	Payments	Excess of Receipts (+) or Payments (−)
Current goods and services:			
Merchandise	4,746	6,022	−1,276
Invisibles, net			+ 580
			− 696
Unilateral transfers (Marshall Aid), net			+ 460
Net balance on current account			− 236
Repayment of foreign debt, net			− 167
Other capital items, net			+ 8
Loss of gold and foreign exchange, net			+ 395
			+ 236

* Bank for International Settlements, *Twenty-Second Annual Report*, Basle, 1952, pp. 110f.

indicates that the country had an excess of merchandise imports over exports amounting to 1,276 million kroner. Its income from services—shipping, tourists, investments, etc.—exceeded expenditures for such services by 580 million kroner. The country also received "unilateral transfers," that is, private remittances by people who have relatives in Denmark and similar gifts, but mainly aid from the United States Government then forthcoming according to the Marshall Plan, which amounted to a net of 460 million kroner. This left a net debit balance of 236 million kroner on the country's current account. This amount, plus 167 million kroner of debt repayment, had somehow to be financed. It was financed by an increase in the country's indebtedness—exports of IOU's, which add to the country's receipts—to the extent of 8 million kroner, as well as, and this was more important, by the loss of gold and foreign exchange to the tune of 395 million kroner. In the light of our criterion, this balance of payments is in disequilibrium, because there is a limit to the continued loss of gold and foreign exchange, the limit being represented by the amount of these items in the till.

It was only in 1952 that the Danish balance of payments was equilibrated, for the first time since World War II. During the forties the country's capacity to produce exports and its import requirements had reflected the dislocations caused by the war as well as an unfavorable development of the "terms of trade." It was largely on account of an improvement of the terms of trade that the balance of payments came into equilibrium in 1952.

The Terms of Trade. The terms of trade, which are so important in their effects on a country's international financial position, are the relationship between a country's import prices and its export prices. Whether a country's balance of trade is active or passive—that is, whether the value of exports exceeds that of imports or vice versa—is determined not only by the volume of exports and imports but also by the prices of exports and imports. The balance of trade of a given country may be passive in one year and become active in the next, without any changes in physical quantities exported and imported, but merely on account of an increase in the prices of exports and/or a decline in the prices of imports. If this occurs the terms of trade are said to have improved. A movement in the opposite direction—that is, when export prices fall and/or import prices rise—is known as a deterioration of the terms of trade.

Broadly speaking the terms of trade have changed against countries specializing in the production of primary products and foodstuffs and to the advantage of countries specializing in manufacturing. The opposite movement, which began in the early thirties during the Great Depression, came to a stop in 1951; and since then there has been an improvement in the terms of trade of the manufacturing countries. This is, of course, a matter that is of the utmost importance to the economies of the under-

developed countries, and we shall return to it in connection with the discussion of their economic position in the next chapter.

Paradoxical as it may seem, a country may at times deliberately pursue a policy that entails a deterioration of its terms of trade. This is the case when a country's balance of payments is in disequilibrium, and the country attempts to attain equilibrium by means of exchange depreciation or deflation of domestic prices. The idea then is to encourage exports by reducing export prices in terms of other countries' currencies and to discourage imports by increasing the prices of imported goods relative to domestic prices. This works only, of course, when the domestic demand for imports and the foreign demand for exports are sufficiently elastic—that is, have a combined elasticity of more than 1. If foreigners cannot be induced by price concessions to raise their purchases of domestic goods, and/or if the quantity of imports that is demanded is the same at any price, depreciation of exchange is not an effective policy for removing a disequilibrium in a country's balance of payments. Usually, however, the elasticities will be sufficiently pronounced to make such a policy successful; if they are not, appreciation of exchange, rather than depreciation, would be the correct policy to pursue. This would raise the value of exports, because then foreigners' purchases would not decline significantly in the face of higher prices of exports in terms of the foreigners' currencies; whereas imports, though they would cost less in terms of the importing country's currency, would stay more or less the same in terms of volume and in terms of the required outlay of foreign exchange.

The Present Balance-of-Payments Situation. The Danish experience was typical of that of many European countries in the postwar years. They coped with their balance-of-payments problems by rigid controls over foreign trade and exchange, by exchange depreciation, by obtaining foreign loans, and with the help of large-scale economic aid forthcoming from the United States. The United States had already granted lend-lease aid during the war, in the amount of $50 billion, of which $7 billion was returned in the form of reverse lend-lease. Incidentally, lack of settlement of the lend-lease account with the Soviet Union is one of the obstacles to increased trade with this country. The war brought about a destruction of capital estimated at well over $100 billion. After the war, the United States initiated a program of aid that provided $50 billion from 1945 to 1954 in the form of grants and credits. This aid was mainly economic in the beginning, and the European countries were its principal recipients. Later on greater emphasis was placed on military aid, and the postwar program of support to America's allies and former enemies was supplemented further by a program of assistance to the underdeveloped countries.

During the 1950's Europe's recovery became complete, and the European countries were able to accumulate increasing reserves of gold and

dollars. The dollar shortage of the postwar years had come to an end. The European countries were able to relax their restrictions on foreign trade and exchange, and restore the convertibility of their currencies into gold or dollars.

The great change was the result of the European countries' vigorous efforts at restoring their economic health. It was supported by large disbursements of dollars for United States military installations in Europe and elsewhere, and by the United States assuming a large part of the economic burden of the defense of the free world by equipping it with arms. Furthermore, the European countries, which are large importers of raw materials and foodstuffs, benefited from the change in the terms of trade, which had become favorable to industrial countries and unfavorable to the underdeveloped countries. The European countries' exports to underdeveloped countries were in part financed by United States aid to the latter, and the European countries thus derived indirect benefits from the American program of assistance to underdeveloped countries. They themselves granted such aid only haltingly. Lastly, the United States has been investing substantial amounts in Europe.

As a result of all these developments, the balance of payments position of the European countries has greatly improved. In the underdeveloped countries, some of which have suffered from chronic balance of payments difficulties, the situation has been aggravated by the turn the terms of trade have taken.

The United States Balance of Payments. Table 37 shows the United States balance of payments for the year 1959. This year was a particularly unfavorable one from the balance-of-payments point of view. The protracted steel strike acted as a depressant on exports and as a stimulus to imports. Sales of cotton were kept down during a major part of the year on account of an expected change in the export price policy of the United States. There was also a nonrecurring item of $1,375 million of an increase in the United States subscription to the International Monetary Fund, paid partly in gold and partly in noninterest-bearing government securities.

Table 37 reveals that the United States earned a surplus of close to $1 billion from commodity trade. Among the invisible or service items there were large earnings from foreign investments, but military expenditures abroad were still larger and the service items as a whole incurred a deficit. The algebraic addition of the merchandise surplus and the service deficit yields a current-account deficit of $875 million.

Added to this net outflow of funds was foreign aid with $1.6 billion—exclusive of military shipments under grants to foreign countries, not shown in the balance of payments and amounting in 1959 to another $2 billion—and United States foreign investments with $4 billion. These sums, if reduced by the inflow of foreign capital into the United States,

add up to a net outflow of funds totaling close to $6 billion. As a corollary of this outflow, foreigners acquired over $1 billion of our gold, and their dollar deposits and holdings of short-term and U.S. government long-term securities—which can be liquidated on short notice—rose by more than $4 billion.

TABLE 37

THE BALANCE OF PAYMENTS OF THE UNITED STATES IN 1959, IN MILLIONS OF DOLLARS*

Item	Receipts	Payments	Excess of Receipts (+) or Payments (−)
Merchandise, adjusted, excluding military	16,225	15,315	+ 910
Travel	902	1,610	− 708
Investment income	3,048	830	+2,218
Military expenditure	297	3,090	−2,793
Other invisible items, net†			− 502
Balance on current account			− 875
Net government grants‡			−1,623
Net outflow of funds on current account plus government grants			−2,498
Net U.S. capital outflow, short term and long term			−4,034
Net foreign capital inflow, long term§			+ 548
Net outflow of funds			−5,984
Balanced by:			
Gold sales to foreigners			+1,075
Liabilities to foreigners, short-term and U.S. government bonds			+4,126
Errors and omissions			+ 783
			+5,984

* *Survey of Current Business*, June, 1960, p. 14.
† Including pensions and private remittances.
‡ Excluding net military transfers under grants ($1,988 million).
§ Excluding purchases of U.S. government long-term securities.

Our balance of payments thus is in disequilibrium, and, as Table 38 shows, the situation in 1959 revealed only in a more conspicuous form a trend characteristic of the entire period of the 1950's. Throughout this period there has occurred a new outflow of funds from the United States to the rest of the world, mainly to Europe, reflected in gold sales in six of the ten years and in increases in short-term liabilities to foreigners in all ten of them.

The balance of trade was active throughout the 1950's, and so was the balance on current account, except in 1953 and 1959. In both these years the deficit on current account was paralleled by only a small merchandise surplus.

In 1957 there barely was an outflow of funds since the surplus on current account (and the merchandise surplus) was large enough to finance foreign aid and foreign investment in spite of the heavy reduction of the inflow of foreign capital during this year.

TABLE 38

UNITED STATES BALANCES OF PAYMENTS, 1950–59, IN MILLIONS OF DOLLARS*

Year	Balance of Trade Surplus†	Balance on Current Account,‡ Surplus (+) or Deficit (−)	Net Outflow of Funds	Gold Sales (+) or Purchases (−)	Increase in Short-Term Liabilities to Foreigners§
(1)	(2)	(3)	(4)	(5)	(6)
1950	1,009	+1,280	3,572	+1,743	1,859
1951	2,921	+3,264	813	− 53	396
1952	2,481	+1,800	1,597	− 379	1,471
1953	1,291	− 180	2,398	+1,161	941
1954	2,445	+1,246	1,683	+ 298	1,218
1955	2,753	+1,481	1,595	+ 41	1,108
1956	4,575	+3,211	1,611	− 306	1,274
1957	6,099	+5,108	280	− 798	330
1958	3,312	+1,550	3,857	+2,275	1,202
1959	910	− 875	5,984	+1,075	4,126

* *Survey of Current Business* June, 1960, p. 14; U.S. Department of Commerce, *Balance of Payments: Statistical Supplement* (Washington, D.C.: U.S. Government Printing Office, 1958), p. 13.

† Excluding military transfers under grants.

‡ Including pensions and private remittances.

§ Including purchases of U.S. government long-term securities.

As has been noted, the year 1959 was an unusual one because of its small merchandise surplus, its deficit on current account, and because the outflow of United States funds included a nonrecurring item of $1,375 million for an increased subscription to the International Monetary Fund. The outflow of funds thus was larger than in any year of the 1950's, and so was the increase in short-term liabilities to foreigners. Ordinarily, foreigners have the choice of receiving the flow of United States funds either in the form of gold or in that of short-term obligations such as bank deposits or securities. They may prefer to hold their dollar receipts in the latter form in order to earn an interest return on them.

During the immediate postwar period, when the world's monetary reserves of gold and dollars were depleted, the outflow of United States funds served the purpose of strengthening the international economy by repleting foreign reserves. As these now have reached an adequate level in many European countries, the possibility of a continued depletion of the United States stock of monetary gold and of a continued rise of foreign dollar holdings in the form of short-term balances poses new problems that will be dealt with as our discussion proceeds.

FOREIGN INVESTMENT

Our investments abroad have become so large that the income from them is about equal to the net additions to our foreign investments in an ordinary year. This does of course not mean that we do not have to "pay" for the additional foreign investments. If they were not made, or were reduced, the outflow of United States funds, others being equal, would diminish accordingly, and so would gold sales to foreigners and the growth of their short-term dollar balances. However, it is an open question whether others will stay equal because if we grant loans to foreigners the resulting increase in their purchasing power is likely to make itself felt in the form of increased purchases of our goods, directly or as a result of the diffusion of purchasing power throughout the world. Thus, the various items in the balance of payments are interrelated in a manner that should prevent the drawing of hasty conclusions. Cutting down on foreign investments—a payments item in the capital account—might entail a reduction of commodity exports or frustrate the expansion of these receipts in the current account.

Since World War I our investments and assets abroad have usually exceeded the investments and assets of foreigners in the United States, that is, our net position has been that of a creditor. This came about as the result of loans to our allies, which put an end to our position of "mature debtor" (see p. 556). During World War II the net creditor position was temporarily wiped out, but since the end of the war our foreign investments and assets have expanded greatly. Already in 1948 the previous high of $12 billion net, which had been attained in 1931, was surpassed. Ten years later the net was approximately $25 billion. The United States has become the world's largest creditor, a position once held by Britain. The latter country had become a net debtor as a result of the economic strain of World War II, but since then it has regained its position as a leading creditor and its net foreign investments have risen to $8.4 billion in 1959.

Foreign investments are made by private individuals or concerns and by government agencies. Of the $65 billions of foreign investments of the United States outstanding in 1959, $44 billion were private investments, whereas $20 billion were in the form of government credits. Private investments are either of the direct, or of the portfolio variety. Portfolio investments represent purely financial interests without managerial control, such as are exemplified by the purchase of a foreign bond. Direct investments involve managerial control and go beyond mere bond investing. The bulk of our private investments, some $30 billion, is of the direct type.

Over 40 per cent of our foreign investments are in Canada and Latin America. In western Europe, our investments in the United Kingdom are

still the largest, but those in continental countries increase at a considerably faster rate. This reflects the rise of subsidiaries of United States manufacturing companies in Europe, a development commented on above, p. 577. Of our investments in underdeveloped countries, those in petroleum and other mineral resources loom large.

There are certain political and economic risks attached to foreign investments, especially in the underdeveloped countries. Foreign companies may be expropriated, as were the oil companies in Mexico some years ago and more recently a whole range of foreign companies, mainly United States ones, in Cuba. Or there may be default of bond issues, as has happened on a large scale during the 1930's. Foreign companies may be subject to discriminatory treatment in matters of taxation, enforcement of social legislation, and the like, and they may be refused permission to withdraw their capital or remit profits to the United States. As the United States government, for political reasons, wishes to encourage investments in underdeveloped countries, it may make these more attractive by providing guarantees, insurance programs, credit facilities, and tax concessions. Such means of encouragement are not required for the stimulation of United States investments in Europe. There is no overriding political interest in these, and they have been made in large amounts without special inducements. If it is desired to reduce the burden which they place on the United States balance of payments, it may be possible by means of tax concessions to encourage the remission of profits to the United States instead of having them reinvested in Europe.

Public agencies sometimes are in a better position to assume the risks of foreign investments that are made for economic as well as political reasons. Among the public lending agencies of the United States active in the foreign field, the Export-Import Bank stands out. Established in 1934 and now holding over $3 billions of loans, the Bank's original function was the encouragement of United States exports. This was in more recent years supplemented by development loans for long terms. The Bank operates under a statutory rule requiring it to aid and support, rather than compete with, private business. Development loans of the Bank have been largely used to finance substantial projects in transportation and electrical energy production which do not compete with private investors but whose construction tends to make private investments along other lines more attractive. In 1960 the original function of the Bank has again come to the fore and it is being used as a source of special credit facilities designed to encourage exports.

The Bank obtains its funds from the United States Treasury, utilizing the relatively low-cost government credit. It could place its own securities in the capital market, but this would require slightly higher interest cost. Since its establishment it has disbursed some $7 billion of loans. It has earned

its way, with profits going into the hundreds of millions of dollars, while losses have been less than $3 million, that is, less than one twentieth of 1 per cent of disbursements.

Loans granted by the Export-Import Bank are "tied" in the sense that they have to be spent for purchases in the United States. This practice, which arose during the depression, is not altogether reconcilable with the principle of multilateralism, which is so firmly grounded in the United States commercial policy. While the practice of tying loans was relaxed during the postwar scarcity of goods, it has been revived lately partly as a result of the pressure to which the United States balance of payments is exposed.

Nine tenths of our foreign investments are of the long-term variety. As of 1959, our short-term foreign investments were only $6 billion, and of this amount, $2.4 billion were government credits many of which are not easily collectible or payable only in foreign monies. Of the assets and investments of foreigners in the United States, on the other hand, no less than $24 billion were short-term obligations or United States government securities which can be liquidated quickly. The United States thus is a long-term lender and short-term borrower, a situation that is not without potential dangers. Our long-term investments reflect our position as the world's leading economic power but they would be of little help in the case of a wholesale withdrawal of short-term funds—bank deposits, government securities, and the like—by foreigners who have acquired these claims in consequence of the deficit in our balance of payments. As will be seen, however, such a wholesale withdrawal is a contingency that is unlikely to arise, especially not under conditions of continued prosperity. Thirty years ago, during the Great Depression, perturbed creditors withdrew short-term funds from one country after another, eventually also from England, then the financial center of the world but a long-term lender and short-term borrower and suffering from balance-of-payments deficits. England could not withstand the "external drain," and in 1931 suspended gold sales and allowed the pound to depreciate by 30 per cent within three months, after which the world trading system was disturbed for many years.

THE INTERNATIONAL MONETARY FUND

The situation now differs from that of the 1930's because since then an international financial institution, the International Monetary Fund, has been created that is designed to assist countries which find themselves in temporary balance-of-payments difficulties. As will be seen, however, the Fund, as presently constituted, is unable to cope with financial disasters of a dimension characteristic of the great depression of the 1930's, and other devices must be sought to prevent the possibility of a reoccurrence of an

external drain which may have devastating effects on the world economy and on domestic employment and prosperity.

When the end of World War II was in sight, it was felt among the statesmen of the Allies that there should be created machinery that would aid in the orderly adjustment of short-term balance-of-payment difficulties, relieve the impact of wartime devastation, and help to eliminate structural weaknesses resulting from retarded economic development. With these aims in mind, the representatives of forty-four nations met in Bretton Woods, New Hampshire, in 1944. The agreements concluded there created two international financial institutions, the International Bank for Reconstruction and Development, known as World Bank, and the International Monetary Fund, or IMF. Both organizations are affiliates of the United Nations. Since their founding, their membership has increased and now approaches seventy countries. Yugoslavia is the only communist member.

As the World Bank has come to be exclusively concerned with the support of economic development, the examination of its structure and operations will be reserved for the next chapter. The Fund has the purposes of promoting exchange stability, maintaining orderly exchange arrangements among members, and preventing competitive exchange depreciation. The instruments for the fulfillment of the Fund's purposes are short-term loans, procedures for the adjustment of exchange rates, and consultation.

The Fund's operations are financed with the help of quotas contributed by the members. The total of these was raised from $9 billion to approximately $14 billion to allow for a greater scope of the Fund's activities in the face of the expansion of world trade. Twenty-five per cent of each country's quota is subscribed in gold; but if this requirement exceeds 10 per cent of a country's gold reserves, no more than the latter amount needs to be contributed in gold. The rest of the quotas is subscribed in the national currencies of the members. It is supplied in the form of accounts with the central banks or of noninterest-bearing government securities.

If a country's balance of payments is such that it requires a specific foreign currency or currencies, it can borrow them from the Fund—out of the other countries' quotas—but it must at the same time put up additional national currency equivalent to the amount of foreign exchange it wishes to borrow. Each country may within one year borrow as much as the equivalent of 25 per cent of its quota, and it may repeat this altogether five times. This 25 per cent, or "gold tranche," is the equivalent of the country's contribution in gold and dollars. Flexibility is secured by allowing the Fund to waive some of the restrictions on borrowing, and the Fund will also make "stand-by" arrangements opening up a line of credit that can be utilized as the need arises. The Fund will provide temporary assistance in financing balance-of-payments deficits on current account for the purpose of monetary stabilization. It will not finance sustained capital outflows.

The par value of the currency of each member of the Fund must be expressed in terms of gold or dollars. A member may, by means of autonomous action, change the par value of its currency only with narrow limits amounting to 10 per cent of the initial par value; otherwise the concurrence of the Fund is required. Unauthorized changes may make the member ineligible to use the resources of the Fund.

During the postwar period the Fund had to acquiesce in substantial depreciations of the currencies of many of its members. While it fixed par values of the members' currencies, many of these were unable to discard exchange control until the late 1950's, and some have not done so yet. After the war, the Fund, created to resolve temporary disequilibriums, found itself faced by a transitional period of disequilibrium that seemed to go on forever. Had the Fund allowed a continuous drain on its meager resources, these would have been dissipated very quickly without being large enough to render an adequate contribution to the restoration of equilibrium. Thus, postwar financial aid was not rendered by the Fund but by the United States, and in much more substantial amounts than those at the disposition of the Fund.

It has only been since the second half of the 1950's that the Fund has assumed an important role in international finance. Since the end of 1956, the Fund has made available to member countries financial assistance amounting to the equivalent of over $2 billion. Requests for drawings within the first 25 per cent, the gold tranche, are approved almost automatically. Requests for the second 25 per cent, the so-called "first credit tranche," are subject to some scrutiny, which becomes more pronounced in the case of drawings beyond the first 50 per cent of a country's quota. The Fund will honor such requests only if it is satisfied with the borrower's intention and capacity to restore equilibrium in its balance of payments. For example, it may require the borrower to pursue a policy of tight money, avert price inflation, relinquish quantitative restrictions on trade, and maintain the value of its currency. Instances in which the Fund has been called for assistance include sudden emergencies such as the Suez crisis of 1956 and 1957, or situations in which heavy expenditures on consumption and investment place a strain on the balance of payments of a country, or situations in which there are temporary difficulties, created, for example, by seasonal factors.

In addition, the Fund provides technical assistance designed to help a country to bring order into its finances, as well as general stabilization programs under which the Fund often mobilizes the resources of other institutions such as the European Fund, the Export-Import Bank, the United States Treasury, and commercial banks which will supplement the Fund's advances as part of a comprehensive plan. In connection with these types of assistance, the Fund will again press for the adoption of standards of financial behavior by the client country considered proper by the Fund.

As these usually involve monetary stringency, countries that fear a deceleration of their economic growth as a result of the observation of such behavior have at times been unwilling to abide by the Fund's judgment as to what constitutes financial propriety, and resistance has been shown to its attempts at interfering with a country's national policies.

INTERNATIONAL LIQUIDITY AND THE DOLLAR PROBLEM

The Dollar as International Reserve. The dollar shortage which arose as the result of postwar balance of payments difficulties was a world-wide phenomenon. The dollar surplus, which has occurred since then, is a much more limited phenomenon since the bulk of the surplus dollars are held in a relatively small number of European countries to which they have come in consequence of their surpluses in their balances of payments. There is no dollar surplus in Latin America and in most other parts of the underdeveloped world. The designation of the dollar receipts of the European countries as "surpluses" is not meant to infer that they are not needed. They are called surpluses merely because they form the counterpart of another country's deficits.

In a sense the accumulation of dollar surpluses by foreign countries is a manifestation of the strength of the dollar. They accumulate it because the dollar has come to be an international means of payment as acceptable as gold. If there is a universally acceptable currency of stable value in terms of gold, such as the dollar, movements of dollars from one country to another may supplement or replace the movements of gold. If only gold were used as a means to settle the international accounts, it is possible that the expansion of trade would be hampered by inadequate international liquidity.[1] During the 1950's, world trade increased at a much faster rate than did the supply of monetary gold. If the dollar would cease to be useful as an international reserve, and if no adequate replacement were available, this would have devastating consequences for the international economy and its repercussions would be felt throughout the national economies of the world.

The Sterling Area. The United States is not the only international reserve center. Britain is another such international reserve center for the Sterling Area, which roughly coincides with the British Commonwealth but excludes Canada. Dating from the time when the members of the Commonwealth were colonies, the Sterling Area has emerged as the result of an organic development, under which Britain, the erstwhile banker of

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[1] "International liquidity" refers to the ability of a country to meet its obligations as they fall due. It is determined by the country's "international reserves," short-term balances, and capacity to borrow. Both concepts have their counterparts in the domestic economy: the ability of persons or corporations to meet their obligations is known as "liquidity," and there are "reserves" of business firms and also of commercial banks, the word not meaning the same in the last two instances.

the world, supplied her colonies as well as other parts of the world with capital, and under which these cleared their accounts in London. Under present arrangements, which were established during World War II, the gold and dollar reserves of the Sterling Area are pooled and Britain acts as paymaster for the external financial transactions of the region. Sterling still constitutes over 10 per cent of the world's monetary reserves. It is the currency in which about 40 per cent of the world's trade is transacted.

The Problem of International Liquidity. As of 1960, the world's monetary reserves, exclusive of those of the Communist countries, were approximately these:

	$ Billion
Gold	41
Dollars	9
Sterling	7

These are the reserves held by the central banks and central governments of foreign countries, including the monetary gold stock of the United States.

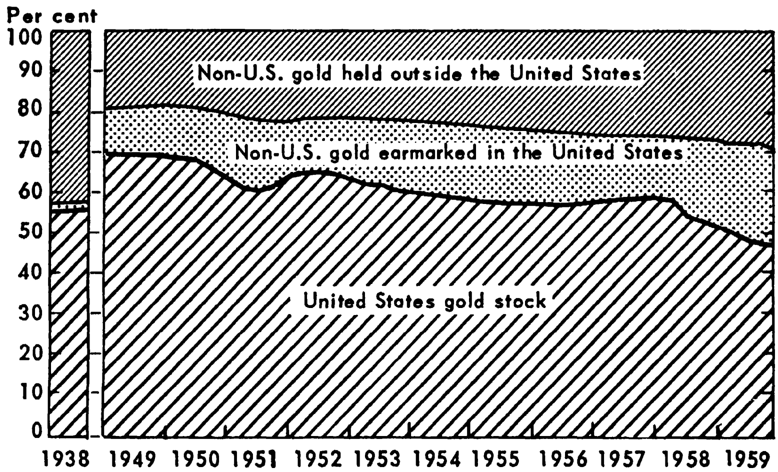
Foreign central banks use their dollars as an international reserve side by side with gold because this use strengthens their international liquidity position. They want to add to their liquidity by acquiring more dollars. They want to do this especially if their own currencies are completely, or nearly so, convertible into gold or dollars. Since 1958 the major European currencies are again convertible. This has liberated travel and trade from the cumbersome processes of exchange control but creates problems of its own, against which the central banks must be constantly on guard. The entire international reserve of Britain, for example, is no more than the equivalent of a few months' imports. If there were a flight out of the pound, or a large-scale speculation against it, Britain might have to suspend gold sales or devaluate the pound. Such a contingency is unlikely to arise, however, because long before it would happen, there is a good chance that the United States would come to the aid of Britain. Awareness of this is an important factor in preventing capital flight and speculation.

The Dollar Problem. The United States, in consequence of persistent balance of payments deficits, has been losing gold and her gold stock has declined from the peak of $24.5 billion in 1949 to $19 billion in 1960. To view this development in the proper perspective, it is necessary to consider that this amount still constitutes close to 50 per cent of the world's monetary gold (see Fig. 61), and that a better distribution of the world's gold reserves was a desirable consequence of United States postwar aid to countries suffering from a shortage of dollars. Before 1935 the United States gold stock was less than $10 billion, and before 1940 it was less than $20 billion.

The United States has attained the position of the largest international

creditor. She continues to make additional investments, financing these largely from the income on the outstanding investments. As yet, however, the United States has not turned into a mature creditor (see p. 556), and she continues to earn export surpluses of an average $2.8 billion a year during the 1950's (Table 38, Column 2, p. 593). Had there been no outflow of funds for military expenditures and foreign aid, it would thus have been impossible to equilibrate the balances of payments of the European countries, to equip them with international reserves, and to attain a measure of redistribution of the gold stock.

DISTRIBUTION OF THE WORLD'S MONETARY GOLD STOCK*
(IN PERCENTAGES)



* Including international institutions but excluding the U.S.S.R. and, from 1957 onwards, other eastern European countries.

FIG. 61. While the United States gold stock has declined, it still approaches 50 per cent of the world's monetary gold. Source: Bank for International Settlements. From American Bankers Association, *International Financial Developments*, April, 1960, p. 17.

It is an open question, however, how far these trends can continue without creating a liquidity problem for the United States. The decline of the United States stock of monetary gold during the 1950's was accompanied by a rapid increase in short-term dollar holdings of foreigners. These now exceed the United States monetary gold stock by a margin that still is small but might grow in the future. In addition to approximately $2 billions of foreign holdings of United States government securities with a maturity of more than one year but salable on short notice, they amounted to $20 billion in 1960. Of this sum, $3.4 billion was held by international institutions such as the International Monetary Fund and the World Bank, $9.2 billion by foreign central banks and governments, and $7.5 billion by other foreign residents and companies.

There is thus a "mortgage" on our gold stock in the sense that foreigners may exchange their bank deposits and United States securities for gold. In the unlikely case that they would claim all of it at the same time, there would not be enough of it. This contingency is precluded because the bulk of the short-term holdings is under the control of international financial institutions and central banks which would be loath to unsettle the international financial situation irresponsibly. Of the short-term holdings of private individuals and foreign companies, not all is "speculative"; instead, a considerable portion serves as working balance to take care of the ordinary needs of trade.

In the case that the foreign owners of short-term holdings would claim 50 per cent of the latter, this could be satisfied, but it would affect our ability to maintain a gold reserve of 25 per cent against Federal Reserve notes and Federal Reserve bank deposit liabilities, as required by domestic legislation. This percentage was reduced from one of 35 against deposits and 40 against Federal Reserve notes in 1945. It can of course be reduced again, or it can be suspended temporarily by the Federal Reserve Board, but probably not without creating adverse psychological effects. As the law stands, the domestic reserve requirements run into approximately $11 billion worth of gold.

These difficulties might become aggravated if there were continued large deficits in our balance of payments, reducing our gold stock further or adding to foreign dollar holdings. Moreover, a substantial portion of the dollar holdings is sensitive to changes in interest rates, that is, the holders are apt to convert their balances into gold and invest them in other countries if the interest return offered in these seems more attractive. In other words, if the United States, for reasons arising from the condition of her domestic economy, were to pursue a policy of low interest rates, this might be responsible for further losses of gold. To avert this contingency, the United States might feel compelled to abstain from pursuing a policy of low interest rates, to the detriment of her domestic economy. As of 1960, the contingency was probably considered more potential than real by United States policy makers, because interest rates were lowered during that year.

As will be recalled, movements of gold into the United States create reserves for the members banks of the Federal Reserve System, while outward movements of gold destroy such reserves. The bank reserves in turn serve as a basis for a multiple expansion of credit granted by the banking system, the multiplier being approximately of the value of 6. Gold sales to foreigners thus tend to have a restrictive influence on credit as with every $1 billion of such sales the foundation for about $6 billion of credit is extinguished. This need not be a matter for great concern, however, because the Federal Reserve has on hand devices which, if used judiciously, can offset the loss of reserves by creating an equal amount of new ones through

open-market operations. In past times, when the reserves of the commercial banks were swollen on account of gold imports, these were "sterilized" through the sale of corresponding amounts of government securities. In a similar fashion it is possible also to sterilize gold exports by the reverse policy of buying government securities in the open market.

Looking at the dollar problem from the point of view of the receivers of the dollar surpluses, a different aspect emerges. Earning these international reserves has enabled the countries of Europe to restore the external liquidity of their monetary systems. The replenished reserves, in turn, have refreshed their economies, facilitated the expansion of trade, and brought about, together with other factors, the conditions of economic strength and prosperity which now pervade them and have turned them into a strong bulwark against the spread of communism from the east.

The dollar problem thus poses a dilemma that can be resolved only by economic statesmanship of the highest order. If the United States continues to incur large deficits in her balance of payments, the difficulties which already exist may become greater. There will be resistance to a situation under which domestic policies must be conditioned to the unfavorable reactions of foreign bankers to lower interest rates and easier money in the United States. On the other hand, if the trend were reversed, causing the world to lose dollars and gold, this would result in illiquidity abroad, a contraction of trade, and in policies of deflation that would bring a deceleration of economic growth, unemployment, and a possible depression that might spread to our own shores.

The dollar problem thus is joined with the broader one of international reserves or international liquidity. How can it be resolved?

Solutions of the Dollar Problem. The problem of dollar surpluses is political in origin because it is for reasons of foreign policy that the United States maintains military installations abroad, extends military aid to her allies and economic aid to underdeveloped countries. This, of course, does not preclude the operation of other motives in addition to the political one, especially in the case of aid to underdeveloped countries. But these programs, which require huge dollar outlays, are an integral part of our foreign policy, and the political costs of discarding them are so overwhelming as to be prohibitive. It is possible that in the future some of the military programs will be modified in response to changes in the art of war, such as the shift from aircraft to missiles, and that this will reduce our military disbursements abroad. Also, it is possible that our allies will be required to assume a greater burden of defense than they do now. Such and similar conjectures might reduce the dollar outflow in the future, but for the present time it constitutes a political fact basic to the discussion of the economic issues involved. As for economic aid to underdeveloped countries, this surely should be made available more liberally by the countries of the continent of Europe, but the need for it is so urgent that a policy of retrench-

ment on our part is resisted by many competent students of the matter, even if the European countries assume greater responsibilities.

A second proposed solution aims at the production of a larger surplus from our merchandise trade with which to finance a greater share of the political outlays. Indeed, efforts at widening the excess of our merchandise exports over our merchandise imports deserve support. They are not likely to provide a cure for the dollar problem but they help in restraining the size of the future outflow of dollars. The great danger of such efforts is that the ensuing "trade drive" will be concerned more with restrictions on imports, which are facile and enjoy wide political support, rather than with an expansion of exports, which ordinarily cannot be achieved by political fiat but results only from the unconcerted action of many buyers and sellers. Restrictions on imports would impoverish ourselves and the rest of the world, and their effects on the trade balance would soon be frustrated by retaliation on the part of foreign countries, accompanied by undesirable political repercussions.

A moderately successful trade drive would not add to our gold nor reduce the existing dollar holdings of foreigners. Although there may be difficulties for United States exports of farm products to the Common Market, there are favorable factors in the picture which have already brought about a substantial increase of our merchandise balance in 1960. Boom conditions have produced a labor shortage in a number of European countries, and wages in these countries are likely to rise. This has stimulated purchases in the United States. Moreover, there is a trend toward the gradual elimination of quantitative restrictions on imports from the United States, allowing a freer play of the market forces which favor such imports.

A third proposed solution is the devaluation of the dollar, that is, an increase in the price of gold over and above that of $35 per ounce which has prevailed since 1934. Such a measure, so its proponents argue, would discourage imports and encourage exports. It would be in line with devaluations which have occurred in other important countries, trading partners of the United States, and with the rise, since 1934, of the prices of other commodities. It would also be in line with the march of history, which since times immemorial has brought about an appreciation of gold and a depreciation of money.

However, a depreciation of the dollar would only be called for if it could conclusively be shown that the American level of prices and costs has risen disproportionately to that of other countries. Even then, there would be many arguments against it. Such a measure—an increase in the price of gold—would benefit first of all the Soviet Union, the country with reportedly the second-largest gold stock in the world, as well as South Africa, the world's largest producer of gold. In all likelihood it would be followed by devaluations of other important currencies, and to the extent to which these take place the effects on the balance of payments would be

frustrated. Moreover, if a devaluation of the dollar were anticipated, foreigners would liquidate their dollar holdings and turn them into gold and there would be widespread speculation against the dollar. There would be a flight of domestic capital out of the dollar and into safe havens abroad, making for a further outflow of funds; while the search for safe havens at home would drive up the prices of commodities and shares of stock, bringing about violent inflation. This rise in domestic prices would again negate the effects of depreciation on the balance of trade. The growing hysteria which would accompany all this, and the imposition of strict exchange control by the government—to avert the flight of capital—might expose our democratic processes to great strain and turn us into a police state.

The foregoing discussion of currency depreciation does not imply that the present structure of foreign exchange rates is sacrosanct and must not be disturbed under any circumstances. On the contrary, certain foreign currencies seem to be undervalued relative to the dollar and other currencies, and this situation, which has prevailed for a number of years, calls for early correction. The principal example is that of the West German mark, whose value relative to other currencies has been held disproportionately low. In conjunction with low domestic prices and wages, this has made possible the earning of huge export surpluses by West Germany and the accumulation of a gold stock second only to that of the United States (Soviet Russia always excepted) and of short-term dollar balances second only to those of Canada. The correction of these disproportions is an indispensable condition for the working of our system of international reserve currencies.

AN INTERNATIONAL CENTRAL BANK

What then is to be done to resolve the dual problem of the dollar and of international liquidity? There are those who refuse to admit the urgency of the problem. They will argue that the situation of a country whose gold reserves fall short of its short-term foreign liabilities is similar to that of a bank, whose inability to meet all of her demand deposit liabilities at the same time is said to be taken for granted. In fact, however, there is an enormous difference between the two situations. The bank, in the case of need, has recourse to the resources of the central banking system. Its creditors are aware of this as well as of the insurance which the government provides for their deposits. In the case of a nation, there is no international central bank to which recourse can be had and neither are its creditors insured. The only international financial institution which comes close to an international central bank is the International Monetary Fund. The resources of this organization are, however, meager ones, and they are available only for limited types of assistance. Moreover, such assistance usually is given under terms that make for deflation and may not be acceptable to

a country that wants to make the most of its opportunities for economic growth.

In this situation the proposal has been made to solve the problem of international liquidity and of the dollar by converting the International Monetary Fund into a genuine international central bank. This proposal is connected with the name of Professor Robert Triffin of Yale University, a high authority in the field of international finance and the architect of the European Payments Union, which did much to restore trade and the financial health of the European countries in the postwar period. Professor Triffin's proposal is an elaboration, with modifications, of ideas which the late Lord Keynes developed at the end of World War II, when the structure of the future Bretton Woods organizations was under debate. At that time, however, there was no persistent pressure on the United States balance of payments, and the Keynes Plan was rejected by the United States in favor of the narrower and less expansionist structure of the International Monetary Fund as it eventually emerged. Now that the tables are turned the initiative for the establishment of an international central bank has come from an American economist.

New ideas in the field of international finance are likely to have hard going. They are too technical and complicated to stir the public into action. As for bankers and treasury officials, the heavy responsibilities of their office make them conservatively disposed and averse to remedies they consider untried. This is true of the international field as well as of the national one. Throughout the nineteenth century, a national central banking institution was extremely unpopular in the United States. It took the panic of 1893 and that of 1907 to arouse Congress to action, and when the Federal Reserve System was instituted in 1914, many commercial bankers were opposed to it and denounced it bitterly. Fifteen years later it was said that "few of the dangers and probably none of the injustices foreseen by its opponents at the outset have been incurred."[2] Only very slowly as a rule, but more quickly under unusual circumstances, does support arise for profound reorganizations in the field of finance. But in view of the political situation of the world and also to avert the harm which a financial crisis would bring to countless individuals, it would be extremely dangerous to wait with needed financial reforms until a disaster has happened.

The proposed international central bank would fulfill no more than what now is taken for granted as an indispensable function of our national central bank. Just as the latter creates reserves for the domestic commercial banks, so would the international central bank create reserves for the national central banks. This would relieve the national currencies, especially the dollar, from the function of serving as international reserve, resolve the dilemma created thereby, and remove the threat of a liquidity crisis.

[2] H. Parker Willis, "Federal Reserve System," *Encyclopaedia of the Social Sciences* (New York: Macmillan Co. 1931), Vol. VI, p. 165.

Under Professor Triffin's plan, the member countries would deposit with the International Monetary Fund a stated percentage of their international reserves, say 20 per cent, and these deposits they would maintain in the indicated proportion. Foreign currencies—the dollar—would no longer be used as means of international payments, which instead would be made by transfer of gold or of Fund deposits. To guard their liquidity position, foreign countries would no longer have to accumulate dollars, since they would have access to the resources of the Fund. Loans from the Fund would be made available in the form of deposits. The Fund would engage in open-market operations and earn interest on its loans and investments. Member countries in turn would earn interest on their deposits.

The principal objections to the plan are two. If a country can obtain loans and deposits from the Fund, this adds greatly to its purchasing power, making for increased demand for imports and inflation. To avert this danger, it has been proposed that certain restrictions be placed on the pace at which the Fund's lending would expand every year. The rate of expansion might be held in line with the rate at which world production or world trade increases. The second objection to the plan arises from national distrust against an international organization that would assume important functions in the field of finance and thus curtail a nation's sovereignty. It is doubtful, however, whether this objection is well taken in the case of a country whose currency is used as an international reserve. As has been seen, such a country may not be free in the pursuit of its domestic economic policies and it is exposed to the threat of a run on its gold. Whatever the details of the Fund's reorganization may be, there is little doubt that the United States would wield great power and influence in this institution and that her position would be much superior to the present one, where she faces forces which she does not control.

SUMMARY

Problems of foreign exchange arise from the fact that the various countries have different monetary units. A country obtains foreign exchange by selling something to foreigners: goods, services, gold, or securities (IOU's). All transactions that cause receipts from abroad or payments to foreigners are reflected in a country's balance of payments.

Since the 1870's the United States usually exports more merchandise than she imports, having at that time attained the status of a "mature debtor." During the interwar and postwar period the United States has attained the position of the leading international creditor. But her foreign assets and investments are of the long-term variety, while she owes substantial amounts of short-term liabilities to foreigners. These have been incurred as a consequence of postwar deficits in our balance of payments.

The deficits in turn reflect our foreign investments, our military programs abroad, and our programs of economic and military aid to foreign countries. As the outflow of these funds exceeds our surplus from commodity trade, foreigners have acquired dollars and we have lost some of our gold.

The dollar has become an international reserve currency which foreign countries desire to accumulate for reasons of international liquidity. If we put an end to their acquisition of dollars, we might hamper the economic growth of the European countries. If we do not, foreign short-term holdings of dollars, now in excess of our stock of monetary gold, will continue to increase and our gold stock will continue to decline. There are a number of proposals that might open a way out of this dilemma, but they all have serious shortcomings. It might be best if the dollar would no longer be used as an international reserve by foreign countries, and instead there would be established an international central bank. Such a bank could create deposits the transfer of which would be used for the settlement of international obligations. The International Monetary Fund, which helps in the adjustment of short-run balance of payments disequilibriums, might be converted into an international central bank.

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STUDY QUESTIONS

1. Wherefrom does the demand for foreign exchange arise?
2. How can a country "export" its unemployment problem or its inflation?
3. What is meant by a country's "international balance of payments"?
4. When is a country's balance of payments in disequilibrium?
5. What are the balancing items in a country's balance of payments?
6. How has been the movement of the terms of trade in recent years?
7. Why does the United States balance of payments show an outflow of funds?
8. What is the international investment position of the United States?
9. What is the international investment position of Britain?
10. Why would the government stimulate private investments abroad?
11. What are the principal functions of the International Monetary Fund?
12. What is meant by "international liquidity"?
13. What is meant by "international reserves"?
14. What is the nature of the dollar problem?
15. Can the dollar problem be solved by stimulation of United States exports?
16. Does the government have as much power over exports as it has over imports?
17. What are the objections to an increase in the price of gold?
18. How adequate is our stock of monetary gold?
19. What is the sterling area?
20. Why has it been proposed to transform the International Monetary Fund into an international central bank?

Chapter 23 THE ACCELERATION OF ECONOMIC DEVELOPMENT

THE CURRENT INTEREST IN ECONOMIC DEVELOPMENT

Point Four. About two thirds of the world's population live in regions that are economically underdeveloped (see Fig. 62). The annual per capita income of the people in these regions is less than one tenth of that of the people in the more highly developed areas. Although calculations in terms of national income may overstate the difference between the underdeveloped and the advanced countries (see p. 97), there is no doubt about the fact of dire poverty in many parts of the world and about the low standards of consumption, of health, and of education which prevail in many countries.

Ever since the end of World War II the acceleration of the economic development of the backward regions of the world has become a major concern of the United States. In his inaugural address of January 20, 1949, President Truman formulated the celebrated "Point Four" of his program by recommending to the Congress the enactment of legislation to authorize an expanded program of technical assistance to underdeveloped areas and an experimental program for encouraging the outflow of private investment beneficial to this economic development. The President's words were as follows:

> We must embark on a bold new program for making the benefits of our scientific advances and industrial progress available for the improvement and growth of underdeveloped areas. . . . We shall make available to peaceloving peoples the benefits of our store of technical knowledge in order to help them realize their aspirations for a better life. And, in co-operation with other nations, we should foster capital investment in areas needing development. Our aims should be to help the free peoples of the world, through their own efforts, to produce more food, more clothing, more materials for housing, and more power to lighten their burdens.

DISTORTED MAP OF WORLD ON SCALE OF POPULATION

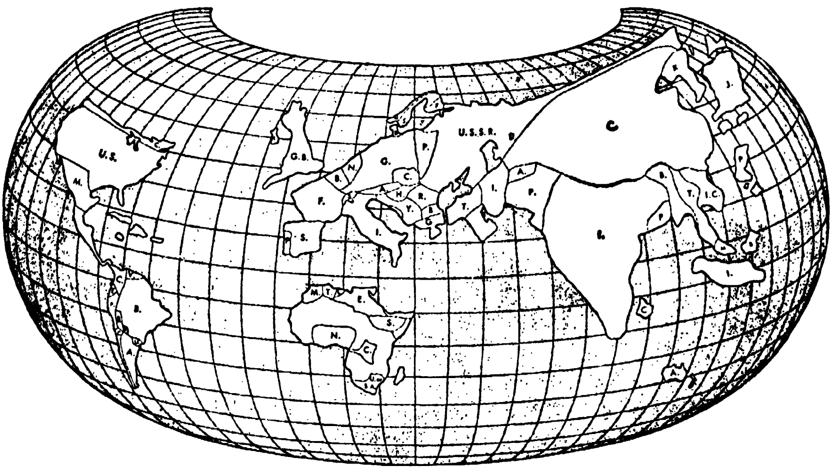

FIG. 62. The bulk of the world's population lives in the underdeveloped regions of Asia, Africa, and Latin America. Source: W. S. and E. S. Woytinsky, *World Population and Production* (New York: Twentieth Century Fund, 1953). By permission.

President Eisenhower, in an address of April 16, 1953, expressed in similarly inspiring words the hope for a relaxation of world tension. Disarmament, he pointed out, would free resources for use in "a new kind of war," a "declared total war, not upon any human enemy but upon the brute forces of poverty and need." He made clear that—

> . . . this government is ready to ask its people to join with all nations in devoting a substantial percentage of the savings achieved by disarmament to a fund for world aid and reconstruction. The purposes of this great work would be to help other peoples to develop the undeveloped areas of the world, to stimulate profitable and fair world trade, to assist all peoples to know the blessings of productive freedom.
>
> The monuments to this new kind of war would be these: roads and schools, hospitals and homes, food and health.
>
> We are ready, in short, to dedicate our strength to serving the needs, rather than the fears, of the world.

The United States program of assistance to underdeveloped countries, which was launched as a result of President Truman's proposal, represents a new departure in international economic relations. First, assistance under the program is made available not only in the form of loans but also in that of grants, which do not burden the recipient with debt. Second, under the program virtually all countries are eligible to receive assistance. In the past assistance was provided by the colonial powers to their respective colonies. Third, the program includes, and emphasizes, investment not only

in capital in the conventional sense but also in human capital, contributing to improvements in health and education.

There has rarely been a period in the past in which the situation and the problems of backward countries have been as lively and as widely discussed as they are today. Many programs of economic development are being formulated, and the whole matter has persistently occupied the policy makers during the last few years. The rise of the current interest in economic development is due to a number of factors, which include the political awakening in the underdeveloped regions of the world, the specific situation in which England has found herself after World War II, and the specific conditions confronting the United States when assuming world leadership.

The End of Colonialism. The political awakening of the underdeveloped regions of the world may be summarily referred to as the end of colonialism, although the terms do not exactly match. A colony, strictly speaking, should perhaps be defined in juridical terms as a territory which lacks full sovereignty and which is legally "dependent" upon a so-called "metropolitan power." Now, what is going on in the world today is much more than the emancipation of colonies from legal bonds, although the rise of India, Pakistan, and of many new nations in Africa and other parts of the world provides impressive examples of such an emancipation. But at many places the popular aspirations go far beyond the attainment of self-government in a formal and procedural sense. Political independence merely forms a part of what has been called the "revolution of rising expectations." People aim at higher living standards and the elimination of the most abject manifestations of poverty, at an accelerated pace of industrialization, at greater independence from foreign business concerns, and at the modification of an economic structure geared to exports specialized along narrow lines and supplied by exhaustible resources. Such goals, whether they are compatible with each other or not, have one thing in common: their fulfillment requires profound changes in the economic structure of a country. The promotion of these changes has become the rallying cry of the underdeveloped world.

The Legacy of Europe. While the backward countries' pleas for economic development have become more insistent, the font from which such development was fed during long periods of the past is no longer adequate. Economic progress as it occurred in the backward countries during the nineteenth and early twentieth centuries was generated by the investments of private capitalists and banking houses, who were willing to place a substantial proportion of domestic savings in faraway localities. Europe at that period of history was the world's banker; and among the European countries, Britain stood out as the principal source of private risk capital available to foreign borrowers. Equally important, Britain also provided managerial talent and technical know-how to supplement the services of

her capital. This development reached its peak in the years preceding World War I, when in an average year an estimated 8 per cent of the British national income was invested abroad. This is a figure of awe-inspiring magnitude; if the same percentage were applied to the current national income of the United States, the result would be an amount coming close to $35 billion, many times the value of our foreign investments per year. To the extent of her ability, Britain continues to channel funds into underdeveloped regions. But the diminution of her economic strength as a result of World War II—together with some Commonwealth countries she was the only country on the allied side to stay in the war from the beginning to the end—has affected her capacity to export capital now demanded in so much larger amounts than before. On such funds as can be made available by Britain, the underdeveloped parts of the Commonwealth have first claim.

The attitude of other European countries varies. All of them have at present an investment boom of their own which competes with the use of their resources for other purposes. West Germany lost her colonies more than forty years ago and her connections with the underdeveloped world are narrowly commercial ones. As regards other countries, their relations with present and former colonies are on the whole not nearly as cordial as they are in the case of Britain. The liquidation of their empires has as a rule been accompanied by greater violence and generated more bitterness and resentment than was true of the liquidation of the British Empire. Nevertheless, France continues to channel funds to Africa, but her disappointments in the Far East have caused her to lose all interest in that part of the world. A similar attitude to the Far East prevails also in the Netherlands, which indeed no longer has diplomatic relations with Indonesia. As for Belgium, her disappointments in Africa are likely to generate little enthusiasm for the promotion of economic development there.

The United States as World Leader. The United States thus has assumed world leadership in the drive for the acceleration of the economic development of backward countries. It has done so in the postwar years when the European countries were unable to render much assistance in this matter. While Britain is aware of her responsibilities, many continental countries, now fully recuperated and indeed enjoying record prosperity, have become habituated to a pattern that was established under entirely different circumstances and under which the main burden of aid to the underdeveloped world had to be borne by the United States. Now that circumstances have changed the United States rightly insists that the old pattern be adjusted and that the continental countries contribute a substantially greater share to the free world's program of foreign aid by grants rather than commercial exports. Lingering resentment against them by former colonials and the suspicion of imperialism may make it inopportune for them to establish an elaborate national machinery for making aid available to the underdeveloped countries. Whenever appropriate, their

assistance should be channeled through the co-operative programs of the United Nations and the newly established International Development Association.

The United States is participating in these programs and in addition pursues a far-reaching aid program of her own. She is in a better position to do this than are the continental countries because not only are her relations with the underdeveloped countries not burdened by an imperial past but she herself was "underdeveloped" not so long ago and she was under colonial rule until less than 200 years ago. Her emancipation from this rule, and the ideas of the founding fathers have for long been a matter of profound inspiration to the underdeveloped world.

As the United States finds herself charged with new duties and responsibilities in the matter of foreign aid, there are economic, political, and moral considerations which make the fulfillment of these duties imperative.

From a narrowly economic point of view, economic growth of the underdeveloped countries will benefit the United States because these countries already provide substantial markets. As they prosper, their capacity to import increases. Moreover, as has been noted, the United States is dependent upon many parts of the underdeveloped world for supplies of raw materials. For the moment the supply situation poses no problems, and a huge stockpile has been accumulated in the United States. In the longer run, however, the assurance of a sustained flow of raw material imports is bound to be a matter of concern for our foreign economic policy.

Turning to political considerations, there is first and foremost the danger that communism might continue to spread among the backward regions of the world. Contrary to Marx's expectations, it was not in the most advanced countries of the Western World that communism has attained power. In these the growth of productivity, rising standards of living, social legislation, the expansion of social services, and the rise of collective bargaining have narrowed class divisions and prevented an explosive stratification of society. In the backward countries of the world, on the other hand, the prevailing degree of ignorance and poverty and the absence of conditions favorable to the growth of democratic institutions have created a situation that is readily exploited by the communist conspirators. As has been seen, the Soviets compete with the free world by means of a foreign aid program of their own (see pp. 545 ff.). To defeat the communist ideology in these parts of the world, the advanced countries must offer the backward countries a goal that inspires their imagination and satisfies their ambitions and, at the same time, must reduce ignorance and poverty, on which communist agitation waxes. The case of India is an especially important one. It is the strongest exponent of government by consent and of free institutions in the underdeveloped world. If this great country sets an example of economic progress under democratic rule, many other countries will want to emulate it. If it does not, the consequences for the free

world would be devastating. Elsewhere in the world, in Africa, where the colonial rule often was harsh and where the memory of it is fresh, a large number of new countries are emerging, some with unstable governments and most of them highly nationalistic. They must be protected against Soviet penetration and their friendship won. Coming closer to home, most of the Latin American countries, which are our friends and neighbors, want to improve their economic position and can do so only with our help.

The citizens of the United States, as individuals and as members of various organizations, have traditionally shown awareness of the needs of peoples laboring under unfavorable economic circumstances. Their generosity is second to no one else's. This generosity has manifested itself in an especially conspicuous form after the two World Wars, and it is demonstrated also by the continuous flow of funds devoted to foreign missions and related purposes. The increasing inequality of income and wealth throughout the world compares unfavorably with the leveling tendency of consumption patterns noted at home (see p. 241), so much so that it offends the American sense of moral responsibility and frustrates the desire to see social justice practiced at home as well as internationally. These considerations explain why the promotion of economic development has become a serious concern to the people in the advanced countries of the world.

ECONOMIC STRUCTURE OF UNDERDEVELOPED COUNTRIES

Specialization. In virtually all underdeveloped countries the bulk of the population is employed in agriculture and mining. Emphasis on agricultural production is in itself no sign of backwardness. Witness, for example, the highly developed economies of Australia and Argentina, which are outstanding agricultural producers. In these countries, however, agricultural productivity is high, so much so that the proportion of employees in agriculture is a small one relative to the agricultural output. This is so because in Argentina and Australia we find the application of modern agricultural techniques and highly efficient methods of production. In most backward countries, agricultural operations usually are carried on in the same manner in which they were practiced a long time ago. The amount of farm equipment is at a minimum, and little or no effort is made to retain the regenerative powers of the soil by means of soil conservation and application of fertilizer.

Economic activities in many underdeveloped countries are specialized along relatively narrow lines. In many of these countries, one or a few agricultural products represent a large proportion of the total agricultural output; and a similar situation prevails with respect to mineral production. Take, for example, a few countries of Latin America. The economy of Venezuela is completely dominated by the production of petroleum. The same is true of Bolivia with respect to tin. Cuba's agricultural production

consists principally of sugar. Coffee stands out in the economies of Brazil, El Salvador, Haiti, Costa Rica, Guatemala, and Colombia. The economy of Chile depends upon the production of copper and nitrate; that of Honduras, on bananas.

Role of Exports. The Venezuelans can consume only a small portion of all their petroleum, and the Brazilians cannot drink all their coffee themselves. Specialization, to the extent to which it is practiced in many underdeveloped countries, thus means dependence upon export markets. It is indeed true that the underdeveloped countries export a large proportion of their domestic production; and just as production proceeds along narrowly specialized lines, so do exports. The products which are exported by a single country often absorb a large proportion of that country's productive powers, but in terms of total world output of the respective commodities the amounts contributed may be small ones. It is, thus, generally true that the underdeveloped countries sell in markets which they cannot control in any effective fashion. Bolivia cannot control the market for tin, and neither can Haiti control the market for coffee. But with exports being so large relative to the national output, the situation in the markets for export products is bound to have a profound impact on the respective national economies. If there is a brisk demand for coffee, prosperity will be the rule in Brazil and in the many Central American countries which depend upon coffee exports. These countries will then be in the position to maintain their imports of many articles which they do not produce at home. Imports tend to be highly diversified, usually covering a wide range of consumer goods and all but a few producer goods.

The Terms of Trade. With imports and exports looming so large in the economies of the underdeveloped countries, it is obvious that the terms of trade, that is the exchange relationship between exports and imports, are of the utmost importance to them. Broadly speaking the terms of trade have turned against the producers of raw materials and foodstuffs since the early 1950's. This is a matter of the greatest importance because the deterioration of their terms of trade increases the underdeveloped countries' need for foreign aid.

The prices of staple foods, as everybody knows, are depressed because there is an oversupply of these. Agricultural productivity in the advanced countries is increasing by leaps and bounds, and their agricultural establishments are protected by a rigid regime of import quotas. The United States has fostered a program of disposing of some agricultural surpluses in underdeveloped countries, designed to raise living standards and free resources that can be put to other uses.

As regards the prices of other raw materials, they are depressed because the demand for these is adversely affected by the competition of synthetic substitutes or processed materials. Cases in point are the rise of synthetic fibers and rubber, and of plastics, which have made inroads into the mar-

kets for natural fibers and rubber, textiles, paper, softwood, and metals. On a lesser scale, there is substitution of aluminum for copper and steel. Factors that have aggravated the difficulties of the raw-material producers in recent years include the completion of stockpiles in the United States and elsewhere, the greater efficiency of production which limits requirements for such materials, the de-emphasis on conventional armaments, and the rise of the Soviet Union as a supplier of raw materials.

The lesser reliance of industrial countries on primary products is illustrated by these figures: Between 1950–52 and 1955–57, manufacturing output in the principal industrial countries of the West rose by 28 per cent. The use of processed materials—aluminum, rayon, new synthetic fibers, synthetic rubber, and plastics—rose by 67 per cent, while that of forest products, nonferrous metals, and agricultural materials—cotton, wool, jute, natural rubber—increased only by 21, 16, and 10 per cent, respectively. In the most highly developed economy of the United States, the consumption of the agricultural materials and of softwood showed an actual decline.[1]

From 1953 to 1959, the prices of goods exported by industrial countries have increased by 4 per cent, while the prices of the exports of primary producers have fallen by 7 per cent. In view of the deterioration of the latter's terms of trade, there is renewed interest in international commodity control schemes which would stabilize prices by restricting output. Obviously such schemes rarely operate to the economic advantage of the consumer, but they might be unavoidable lest the effects of economic aid be frustrated further by the trend of the terms of trade. The United Nations Social and Economic Council has established a Commission on International Commodity Trade, which is actively concerned with these matters and has considered a number of proposals for relief. One of these is a pooled fund to support primary producers during periods of excessively adverse price fluctuations. Another is the stimulation of demand for primary products as well as the diversification of production in the raw-materials producing countries.

Payments Position. The deterioration of the terms of trade has in turn affected the balance of payments position of many underdeveloped countries. Many of these are "mature debtors" (see p. 556); that is, their economy is geared to the production of export balances to service the foreign capital invested in the country and to pay for other invisible imports, especially shipping services. Many of them have for long suffered from balance of payments disequilibriums, and they try to operate with the help of strict controls over foreign trade and exchange. They often maintain a system of multiple exchange rates under which the authorities sell foreign exchange at rates that vary with the transaction, with high prices when the foreign currency is needed to pay for imports of "luxuries" and lower ones for the

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[1] "The Demand for Industrial Materials, 1950–57," Great Britain, *National Institute Economic Review*, No. 5 (September, 1959).

importation of necessities. Frequently the currencies of the underdeveloped countries have no stable external value, and there are recurrent devaluations.

Inflation. The continued production of export balances has, in itself, an inflationary effect. Incomes are earned which only in part are offset by goods available for domestic purchase. This is one reason why many underdeveloped economies are plagued by chronic inflation. Other factors which account for the inflationary bias of these economies are the more or less regularly occurring budgetary deficits and the inflexible structure of production, which has little capacity for expansion to meet an increase in demand. Resources in the underdeveloped countries rarely are unemployed, such as they are in advanced countries during periods of depression; and with the prevailing emphasis on agricultural and raw material production rather than on industry, the possibilities for the quick utilization of unused capacities are definitely limited.

Domestic Savings. As the incomes in the underdeveloped countries are low, the bulk of them is devoted to consumption, leaving only a small amount of domestic savings. The distribution of income tends to be more unequal than is true in many advanced countries. This factor probably raises the savings rate over what it would be if incomes were more widely diffused. Now, it goes without saying that incomes in the now advanced countries were also low 100 or 150 years ago, when they themselves were little developed. These countries nevertheless were able to save and accumulate out of their low incomes a stock of capital that became the basis of their industrial strength. Why are the now underdeveloped countries apparently unable to do the same? There are many reasons for this, some arising from the different collective experience of the various countries, others from differences in the scale of values and dispositions. In the English-speaking countries, for example, no opprobrium attaches to manual labor; whereas people in the Spanish-speaking countries tend to look down upon it. In the great civilizations of the East, little value has been placed, at least up until now, upon material progress; and many discomforts of life are accepted in a fatalistic manner.

There is, however, still another reason why the underdeveloped countries find it difficult to emulate now what the presently advanced countries have done in the past. The sacrifices which the industrial revolution imposed upon the people by limiting their consumption and by extracting from them a maximum of effort were not felt as badly in a world where, after all, there were no other countries in which consumption standards were higher or the duties of the laboring man easier. At the present time, all this has changed. The people in the advanced countries enjoy living standards far superior to those which prevail in the backward countries; and the people in the backward countries are well acquainted with conditions in the advanced countries, especially in the United States. This factor, which is known as "demonstration effect," tends to raise consumption in

the backward countries rather than the supply of domestic savings.[2] The wealthy wish to emulate life in the United States by importing expensive automobiles and by setting their sights on what they have observed in the moving pictures. The poor insist on short hours of work, paid vacations, and schemes of social security that often are more ambitious, at least on paper, than those prevailing in the advanced countries.

Industrial Development. The small amount of domestic savings has tended to retard the development of industry in the backward countries. Industrialization has, however, become the goal of many countries; and considerable progress has been made during the past few decades. Owing to the scarcity of entrepreneurial talent the government has played a role of considerable importance in the industrialization movement. This applies, first of all, to the so-called "social overhead"—transportation and communication facilities, production of electrical energy, and the like. But in many underdeveloped countries the government has been active also along other lines, chiefly in the heavy industry, where enterprises have been established by public corporations and planning bodies. It is often easier to organize the planned development of a number of industries in a synchronized fashion than to create single industries whose products are useful only as complements of the products of other industries.

Rapid Population Growth. As has been noted in Chapter 2, p. 24, population growth proceeds at a rapid pace in many underdeveloped countries. Birth rates are high, and so are death rates, but every improvement in health care and standards of living brings the death rate down and increases the rate of natural increase—the excess of the birth rates over the death rate. In the Western World, the secular fall of the death rate has been accompanied by a long-run decline of the birth rate. If events should take a similar turn in the underdeveloped countries, the problem, in the long run, might resolve itself. For the time being, however, many underdeveloped countries find it extremely difficult to equip the large number of entrants into the labor force with enough capital merely to maintain the prevailing low amount of per capita equipment, without being able to make significant additions to the latter. As for agricultural products, the world production of these apparently increases at a faster pace than world population,[3] but this in itself does not ensure that more food becomes available in those underdeveloped countries in which rapid population growth presses against inadequate agricultural resources. Emigration possibilities are strictly limited for the residents of many underdeveloped countries because those regions of the world that might offer opportunities to new-

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[2] Henry W. Spiegel, *The Brazilian Economy* (Philadelphia: Blakiston Co., 1949), pp. viii f.; James S. Duesenberry, *Income, Saving, and the Theory of Consumer Behavior* (Cambridge, Mass.: Harvard University Press, 1949).

[3] Address of Dr. Norman C. Wright, deputy director general of the Food and Agriculture Organization of the United Nations, at Symposium on World Food and Population, Cardiff, Wales, September 5, 1960.

comers close their doors to them. Australia and New Zealand, which are relatively sparsely settled, do not admit immigrants from Asia in any substantial numbers, an attitude that is much resented by the peoples of Asia and which might have dire consequences in the years ahead.

THE PROMOTION OF ECONOMIC DEVELOPMENT

The Role of Foreign Capital. Rapid population growth in many underdeveloped countries is one of the factors that make the need for foreign capital more urgent if development is to be accelerated. To be sure, economic backwardness is not always the result of inadequate capital funds. Some countries in the Middle East, which are rich in petroleum, have ample funds on hand but remain underdeveloped nevertheless. In most instances, however, economic development and, especially, industrialization can be accelerated only with the help of foreign capital.

There is considerable reluctance on the part of private capitalists to sink their funds into foreign portfolio investments, that is, to purchase stocks or bonds issued in underdeveloped countries. Direct private investments have made greater headway, but a large part of these is concentrated in petroleum development and mining. The upheavals in Cuba and in the Congo are likely to act as further deterrents to private investments in the underdeveloped world.

Private capital funds invested in the underdeveloped countries are supplemented by public funds from national and international organizations. The bulk of these investments has gone into the so-called "social overhead"—highway construction, port facilities, electrical energy production, etc.—which is so indispensable for the economic growth of a country but for which private capital is not readily available.

According to widely accepted calculations, the capital-output ratio for underdeveloped countries is approximately 3 to 1, that is, an extra $3 of capital is likely to raise income by $1.

Technical Assistance. The flow of foreign capital into underdeveloped countries is, however, not the only means to promote economic development. Much can be accomplished by improving the conditions of health and education in the backward countries, by acquainting their citizens with modern technologies, and by teaching them skills that enable them to help themselves. Work of this type is known as technical assistance.

Foreign Aid Programs. Around 1960, free world aid to the underdeveloped countries was forthcoming at an annual rate of approximately $4 billion. Well over one half of this was from the United States, and about one tenth from Britain, constituting less than 1 per cent and about 1 per cent of the respective national incomes. It has been calculated that an additional $3 billion per year would be required to raise the standard of living in the underdeveloped world by 2 per cent per head a year.

The United States Program. The national program of the United States

provides insurance for United States investors in certain foreign countries. Some $400 million of such insurance is currently in force. It has never been necessary to claim protection under this program, which did not cover the nationalized United States investments in Cuba. In addition, there is a government program of grants in cash or in commodities made to about fifteen countries, a prerequisite of their survival rather than a development measure. This is supplemented by the disposal program for farm surpluses, amounting to an annual $1.5 billion. Both these programs create "counterpart funds" in the respective currencies of the recipients.[4] The technical assistance program absorbs no more than about 5 per cent of the aid monies but its importance is much greater than this standard of measurement would indicate. This program employs the large majority of Americans working on foreign aid projects. Lastly, there are the loan programs, of the Export-Import Bank (see p. 595), and of the Development Loan Fund. This Fund was established in 1957, and by the end of the fiscal year 1960 it had made commitments for 148 loans totaling some $1,400 million, some of them "soft," that is, repayable in the borrower's own currency. As has been noted, Export-Import Bank loans usually are "tied," while for advances from the Development Loan Fund the President has some leeway to allow "offshore" procurement. In 1959, however, a new provision was put into effect under which loans from the Fund would, as a rule, be available only for purchases in the United States. This was done to lighten the load of foreign aid on the United States balance of payments, and also to induce an expansion of the foreign aid programs of the European countries, their deliveries to underdeveloped countries no longer being financed by United States aid. It was much criticized as a break with the principle of multilateral trading, and as an action that would lower the value of foreign aid to the recipients, preventing them from purchasing the most suitable articles at the lowest prices.

International Programs. International organizations designed to promote economic development include the International Bank for Reconstruction and Development, the International Finance Corporation, the International Development Association, the United Nations, and a number of regional bodies.

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[4] The counterpart funds are accumulated at the rate at which the foreign governments receive grants under these programs. There are many problems raised by the counterpart funds. Who shall control their use, the foreign country, the United States, or both? To what use shall they be put? If the foreign country uses them domestically, this may have inflationary effects. If they are used to finance purchases from abroad, the country may lose foreign exchange. In some countries the counterpart funds have been released for the repayment of the respective government debts. In others, arrangements have been made to "sterilize" them, while the local government issues money at the same rate at which they are sterilized. In again other countries, especially in those whose economies suffer from a deflationary bias, the counterpart funds are used to strengthen their defense efforts. A portion of the counterpart funds is designed to finance programs of international educational exchange.

1. The International Bank for Reconstruction and Development, or World Bank, is one of the two Bretton Woods organizations (see p. 597) with about seventy members, including almost all major countries outside of the Soviet bloc. It has an authorized capital that was raised from $10 billion to $21 billion in 1959. The United States subscription, the largest of all, is $6,350 million. Only a relatively small part of the Bank's capital is available for loans, and the greater portion of these has been financed with the help of securities which the Bank has sold in the United States and abroad. Around 1960 the Bank was making loans at a rate of some $650 million a year, and its total loan commitments then were over $5 billion. The Bank has authority only to grant loans to member governments or those that are guaranteed by a member government. In this respect World Bank loans differ from those of the Export-Import Bank; also, unlike loans granted by the latter institution, they are not tied to purchases from any one country.

Operations of the World Bank are subsidiary in the sense that the Bank will make available credit that cannot be obtained on reasonable terms from other sources. The Bank thus handles primarily large projects which do not meet the requirements of the private capital market—power development, highway construction, railroad improvement, and the like. Loans are granted for specific purposes and may be drawn on only for the purposes for which they are designed. They are usually for a period from 10 to 25 years and interest is payable for them at a rate of now usually 6 per cent. Before the Bank makes a loan, it will investigate the project carefully with the help of a team of experts sent to the applicant country. It will grant only loans that are "sound" or "bankable," that is, whose repayment in hard money can be expected. In addition to its loan program, the Bank has aided underdeveloped countries in the founding of national development banks.

The securities issued by the World Bank enjoy a high rating because of the careful selection of projects financed by the Bank and because the securities are backed by the Bank's capital, the bulk of which is not paid in but subject to call to meet the Bank's obligations.

2. In addition to the World Bank, there was established in 1956 the International Finance Corporation, an affiliate of the Bank and equipped with a capital of $97 million. The IFC, unlike the World Bank, deals exclusively with private business, and it serves economic development by making investments in the member countries—without government guarantee—in private enterprises in association with private capital and management. It invests in enterprises that are primarily industrial, and the amount of each investment as a rule does not exceed $3 million. While its charter precludes the acquisition of shares of stock, the investments of the IFC are not of the conventional bond type. Instead they allow the IFC to share in the profits and growth of the business. The eventual aim is to sell these in-

vestments as the enterprises mature, and put the freed funds to new use. Operations of the IFC have remained relatively small, with total commitments in 1960 of about $27 million, most at 7 per cent interest. The organization has authority to enlarge its resources by selling its own securities, but so far it has made no use of this.

3. The International Development Association, another affiliate of the World Bank, was established in 1960. Its capital of $1 billion is subscribed by the United States with $320 million, and the remainder is made available by sixteen "developed" countries, including Japan, Australia, the Union of South Africa, and thirteen European nations. The principal purpose of IDA will be the granting of "unbankable," or soft loans for long terms, at low rates of interest, and repayable in the borrowers' own currencies. In this manner, IDA's operations will parallel those of the United States Development Loan Fund. Its resources will come not only from the United States but also from other major countries. As they will be available for soft loans, they do not constitute a revolving fund but will require periodical replenishment. It is hoped that the creation of IDA will facilitate a greater contribution of foreign countries to development work than was made by the majority of them in the past.

4. The United Nations does not maintain an organization comparable to IDA or the United States Development Loan Fund. For many years there has been considerable pressure in favor of the establishment of a similar fund within the UN, in which of course the members of the Soviet bloc would wield substantial influence. The United States has opposed these attempts, which are likely to have less support in the future on account of the establishment of IDA. There is, however, a United Nations Expanded Program of Technical Assistance (UNEPTA) which, though much smaller, runs parallel with the United States program and supplements the valuable work of the latter. A United Nations Special Fund, headed by Paul Hoffman, the erstwhile administrator of the Marshall Plan, was created in 1959 for the purpose of undertaking "preinvestment" operations in the form of surveys, research, and training programs. The first project of this Fund was a study of the power requirements of Argentina.

5. Organizations of regional scope include the Colombo Plan for southeast Asia, of which the United States is a member, the European Common Market's Overseas Development Fund (see p. 569), and a newly established Inter-American Development Bank. The latter was instituted in 1960 after many years of hesitation during which the United States had opposed such a project. It may be the forerunner of similar regional organizations for other parts of the world, which the United States might also support. The new Bank has a capital of $850 million plus an additional $150 million for soft loans, and it is expected that its operations will follow the pattern set by the World Bank.

SUMMARY

The end of colonialism, the "revolution of rising expectations" in the underdeveloped world, the vacuum created by the eclipse of Britain as an international investor, the emergence of a Soviet program of aid, and other factors have combined in stimulating interest in the accelerated development of backward countries. Underdeveloped countries have an economic structure which often is characterized by specialization along narrow lines of agricultural and mineral production that is designed for export. Many of them suffer from chronic inflation. Incomes are low, and so are domestic savings. Industrial development has been accelerated in recent years, and much of it has been accomplished under government sponsorship. Domestic savings are supplemented by foreign investments, but accelerated development would require a much heavier flow of these than is actually forthcoming. Programs of technical assistance, undertaken by the United States and the United Nations, are designed to raise standards of health care and education in the underdeveloped countries, and they make available to these countries valuable technical know-how.

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STUDY QUESTIONS

1. What is meant by "Point Four"?
2. What are some unique features of the United States program of assistance to underdeveloped countries?
3. Why has the problem of accelerating the economic development of backward countries become so important in recent years?
4. What are the characteristics of underdeveloped countries?
5. How have the underdeveloped countries been affected by the terms of trade in recent years?
6. What is the capital-output ratio?
7. What is meant by the "demonstration effect"?
8. Does the growth of population retard or accelerate economic development?
9. What are the types of United States programs of aid to underdeveloped countries?
10. What is meant by "counterpart funds"?
11. What is meant by "offshore procurement"?

12. What international organizations are active in the field of economic development?
13. Why is it difficult for some European countries to sponsor development programs of their own?
14. What types of development programs have been sponsored by the World Bank?
15. How does the World Bank operate?
16. Why are underdeveloped countries often plagued by chronic inflation and disequilibrium of their balance of payments?
17. Why do some underdeveloped countries have multiple rates of foreign exchange?
18. Why is the supply of domestic savings relatively small in most underdeveloped countries?
19. Do all underdeveloped countries suffer from inadequate supplies of capital?
20. Why has industrialization become so widely pursued a goal in underdeveloped countries?

VI. *SPECIAL PROBLEMS*

Chapter 24 THE PROSPECTS OF AGRICULTURE

The principal problems of agriculture are related to the changing position of the agricultural sector in the national economy, to agricultural prices and production, land tenure, and soil conservation.

AGRICULTURE AND THE NATIONAL ECONOMY

Declining Proportion of Farming. Economic progress requires a decline in the rural population relative to the total. Unless the number of those who are employed in occupations other than farming increases relative to the number of farmers, there can be no increase in manufacturing and in the service industries beyond that brought about by technological progress. In 1820, over two thirds of our gainfully occupied were in agriculture. A century later, they represented less than one third. Now their proportion is approximately one eighth. The decline is not only a relative one but the farm population has been falling also in absolute numbers, from 32 million in the early 1930's to less than 20 million thirty years later.

Economic progress thus defined is measured by increasing standards of living as indicated by rising per capita incomes. It goes without saying that those who define economic progress in other terms may incline to a different interpretation of the development. The "agricultural fundamentalists," for example, stress the fact that the independent farmer enjoys some measure of security and self-determination that no longer prevails in the typical urban employments, and that there are certain amenities of rural living—not the same as farming, but largely overlapping with it—which often are lost in the process of urbanization and industrialization. However, others will point out that agriculture often is a hazardous enterprise not conducive to health conditions superior to those in the cities. Moreover,

because of the perpetuation of depression-generated programs of price support, the farmers' welfare has come to depend upon government policy to an extent not true of other groups of the population.

The amenities of rural life are of such nature that they generally cannot be evaluated in monetary terms. In terms of money and of the things money can buy, rising per capita incomes entail an increase in the number of those who devote their efforts to nonagricultural pursuits. Agricultural production caters primarily to the demand for the necessities of life. As our standard of living has increased, it has come to reflect the consumption of an ever-widening range of manufactures and services.

As noted in Chapter 2, rural-urban birth rates were greatly differentiated. The relative decline in the agricultural population thus required a steady movement of people from farms to cities. This so-called "rural exodus" was arrested only on rare occasions, chiefly during periods characterized by adverse economic conditions in the cities. During the Great Depression, for example, the farmward movement of city people became accentuated to such a degree that, on balance, the number of people who left the cities to go to farms was substantially in excess of the number of those who traveled in the opposite direction.

Farm Income. The decline in farm population and in agricultural employment has been promoted chiefly by the higher rewards offered in urban occupations. The per capita income of the farm population, while it was rather less before, has been approximately one half of that of the nonfarm population since World War II. This is a striking difference, but the figures tend to overstate the actual conditions. Farm income is understated because what the farmer receives in nonmoney income—farm products consumed on the farm in the form of food and fuel, and the use of the farm dwelling—is valued at farm prices rather than at prices the urban consumer pays for these items. Furthermore, to the extent to which the rural birth rate still exceeds the urban one, the productive population is relatively smaller on farms and relatively larger in the cities, thus making for larger income differentials in per capita terms than they would be, if expressed per member of the respective labor forces. These factors, it will be remembered, are similar to those which make the income differentials between underdeveloped and other countries seem larger than circumstances warrant. In addition, farm income is understated because that from so many small subsistence farms is included in the concept, an important matter to which we shall return later in the discussion (p. 642). It is likely, however, that if consideration is given to all these factors, a differential of several hundred dollars still remains.

Characteristics of the Farm Business. Public policies designed to grant the farmers protection and special benefits have been formulated over a considerable period of time. The need for such policies was recognized fairly early. As a producer for export the farmer, it seemed, did not derive

benefits from the tariff which traditionally had been enacted for the protection of manufacturing interests. On the contrary the tariff apparently placed a special burden on agriculture by exacting from farmers higher prices for manufactures than might prevail under free trade. The persistence of substantial income differentials between rural and city people was impressive enough to call forth legislation in favor of farmers. Agricultural representation in legislative assemblies has always been strong and continues to be so, especially in the federal Senate and in the various state legislatures. No wonder then that the complaints of the agricultural interests often met a ready response. There was also a good deal of emotional emphasis attached to such complaints. The independent farmer more and more came to be recognized as the principal manifestation, if not the last remnant, of small-scale, individual enterprise in a world characterized by impersonal trading bodies and monopolies. He represented, in a sense, the living tradition of institutions which had made America great.

Again others made much of the contrast in the individual farmer's bargaining strength compared with that of large-scale enterprise, which often has a dominant position in the market, and with that of labor, which is organized in powerful trade-unions. To offset their individual weakness, many farmers have formed co-operatives and other marketing organizations which jointly dispose of their products and thus give them greater strength in the market. Public policy has supported this trend by granting to these farm organizations certain exemptions from the antitrust laws and by fostering them otherwise.

In the promotion of rural education and highways, of agricultural research and training, the role of public authorities began to emerge already during the last decades of the nineteenth century. Since then, public support of agriculture has grown by leaps and bounds. It has been rationalized on the basis of various considerations. The individual farmer, having no control over prices, had to dispose of his product at the going, or market, price. When this happened to be unduly low, he might try to maintain his income not by selling less, as a monopolist might do, but by increasing his sales. But, as a large part of his production was in the nature of necessities, the demand for farm products often proved inelastic. In consequence the attempt to maintain income by stepping up sales was not always successful.

On the supply side the farmers' control over output likewise proved to be less effective than that of other producers. The farmer's association with nature as a productive force, the immobile character of his investment, and the relative inflexibility of the labor supply provided on the family farm contributed to this weakness.

The most important factor responsible for the tendency of agriculture to produce unsalable surpluses with adverse effects on prices and incomes has been the rapid growth of productivity in agriculture. On the average, a man-hour on the farm now produces between three and four times the

output it turned out in the 1930's, and production per acre is almost twice what is was then (see Fig. 63). These advances have been made possible by the ever-widening application of scientific techniques to agriculture. Agriculture has become mechanized, there has been a huge increase in the use of commercial fertilizer, and farmers have greatly improved their man-

YIELDS OF FARM PRODUCTS PER ACRE

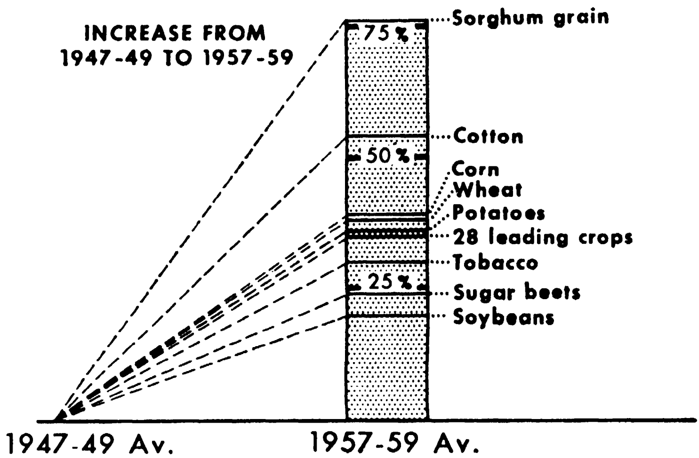

FIG. 63. Yields per acre have risen sharply during the 1950's, reflecting continued advances in farm technology. Source: U.S. Department of Agriculture.

agerial and technical skill (see Fig. 64). All these factors have been at work for many decades, and during the Great Depression, when farm prices and incomes suffered severe reverses, the structural weakness of the farm business was accentuated by slackening export opportunities, reduced urban purchasing power, and the elimination of alternative employment opportunities.

GOVERNMENT AND AGRICULTURE

Parity Prices. During the Great Depression the concept of price parity became the rallying cry of American farmers. A parity price of an agricultural product is a price that would give the farmer the same purchasing power that he had during a period of the past considered as normal. The period originally selected for this purpose was that from 1910 to 1914. Parity may be calculated in terms of a single agricultural commodity or for all farm output. Parity is a ratio of the index number of prices received by farmers to the index of prices paid by farmers, with the period 1910–14 serving as base for both indexes. If the ratio is 1, or 100 per cent, there is parity. If it is less than 1, or less than 100 per cent, farmers do not enjoy

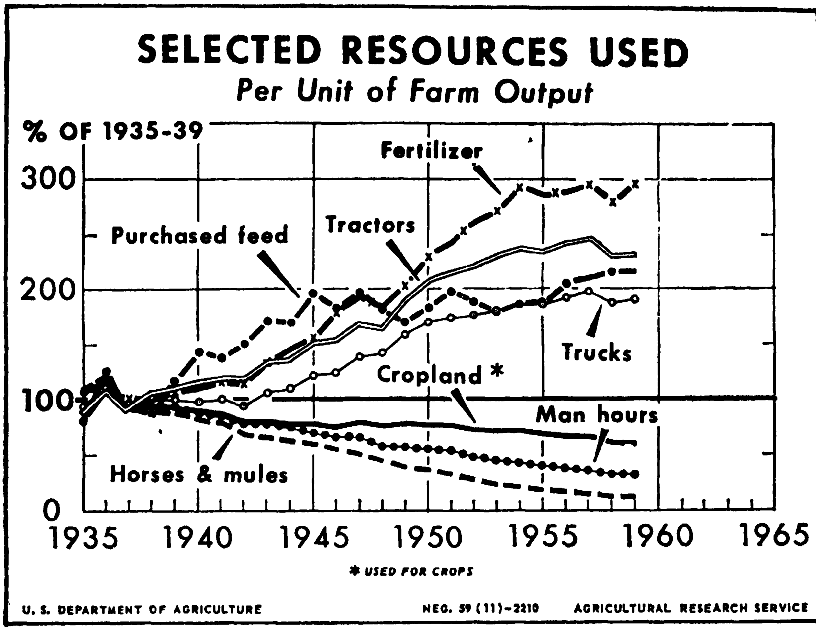

FIG. 64. Advancing technologies have brought about the substitution of labor and land by mechanical and electrical power and equipment, chemical fertilizers, pesticides, and other non-farm goods in the production of a unit of farm output. Source: U.S. Department of Agriculture.

parity prices. If it is more than 1, or over 100 per cent, farmers receive more than parity. The parity ratio was well over 100 during the forties but has fallen below 100 since 1952 (see Fig. 65).

The notion of parity is an economic concept which farmers have put to political use and for which they command support on grounds of economic justice. Ever since the Great Depression they have been able to turn it into a cornerstone of our agricultural policy. No other group in our society enjoys a similar protection of its economic status. To this day, the concept continues to play an important role in the price-supporting policies of the government. Government loans on, or purchases of, designated agricultural products must be made at a certain percentage of their parity price—that is, a price which a farmer would have to receive for a commodity so as to restore the purchasing power provided by the sale of a unit of the same commodity in 1910–14. The number of products supported in this manner has varied under the different farm programs. The percentage-of-parity level of support also has varied from commodity to commodity and has changed over time. Moreover, as will be explained below, the computation of parity both in total and for each commodity has been changed.

Revisions of the parity concept have occasionally been made, some times with the result of higher parity prices but also, and especially in more

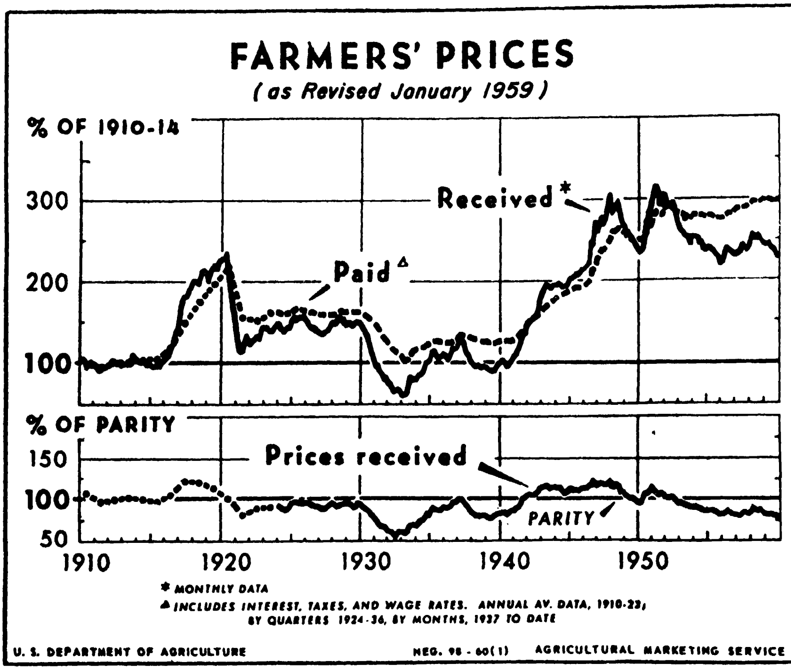

FIG. 65. During most of the 1950's, the prices of agricultural products have been below parity. From U.S. Department of Agriculture.

recent years, with lower parity prices as the outcome. For example, when farm wages rose during the 1940's, the agricultural interests pressed for inclusion of this item among the "prices paid by farmers," thereby to raise parity prices. Later the point was made that cost and demand conditions have changed since 1914 and that parity prices should reflect these changes. On the cost side, the use of the 1910–14 average as a base for the computation of the index of farm prices beclouded the fact that since 1910–14 the cost in man-hours of producing a bushel of wheat or a bale of cotton has declined much more rapidly than the cost of livestock and livestock products. On the demand side, the parity price mirrored demand conditions as they existed before World War I, and the use of the old parity formula retarded the shift to branches of production now in relatively greater demand than before: beef cattle, milk, fruits and vegetables, as contrasted with wheat and other field crops, whose demand has fallen off. Legislation enacted during the late 1940's made it possible to revise the relationships between parity prices for individual products within an unchanged overall average for all farm products. This was done by specifying that the parity prices for individual products should bear a ratio to each other equal to the ratio which existed for actual prices during the 10-year period just ended. In other words, a ten-year moving average adjustment was applied

to parity prices as otherwise computed. Thus, the 1960 parity price for, say, wheat would be computed by obtaining the 1949–59 average price received by farmers for wheat, and dividing it by the 1949–59 average of the index of prices received by farmers for all products (1910–14 = 100). The quotient is then multiplied by the index of prices paid by farmers in 1960 (1910–14 = 100). Since calculation of parity for any other commodity would likewise begin with its 10-year average price, the parities for the respective commodities would bear the same ratios to each other as did the actual 10-year prices. This modification was designed to take into account changes in production and demand conditions among commodities, while the 1910–14 period was still to serve as a base to relate farm prices to nonfarm prices. As the new procedure reduced some parity prices and increased others, the new method was introduced only gradually and with much delay.

It was not until 1958 that a beginning was made to discard the parity formula altogether. Legislation passed in this year opened the way to the replacement of government support of farm prices at a percentage of parity by the support of such prices at a percentage of the average open-market price during the immediately preceding three years.

Acreage Restrictions and Related Measures. The plea for the restoration of the purchasing power of the farmers confronted policy makers during the 1920's. How was parity to be restored? Among some early attempts designed to cope with the agricultural depression were the McNary-Haugen bills. These would have permitted higher domestic prices than those of exported agricultural products. When these bills failed to become law the creation of the Federal Farm Board in 1929 marked an alternative attempt of the federal government to stabilize farm prices. This was to be achieved by means of large federal purchases of agricultural products. But the government-sponsored accumulation of stocks did not stem the further decline of agricultural prices as the depression progressed.

The Agricultural Adjustment Act of 1933 contained the implicit admission of the fact that the prices of agricultural products could be effectively controlled only in conjunction with a plan for production control. The Act was intended to restrict production. There was allotted to each producer of commodities designed for domestic consumption the right to plant a given percentage of the acreage hitherto planted with the crops in question. The reduction was enforced by means of incentives in the form of cash payments for acreage taken out of production. These were financed from the proceeds of a tax levied on the processing of farm commodities. Apart from the financial disadvantage at which a nonparticipating farmer would find himself, no other means of compulsion was applied.

The Agricultural Adjustment Act of 1933 was held unconstitutional by the Supreme Court in 1936, primarily because of the processing tax, which the Court refused to regard as a genuine revenue measure. In the

opinion of the Court it was a control device that enabled the federal government to assume jurisdiction over matters entrusted to state regulation.[1]

The Agricultural Adjustment Act of 1933 also contained an authorization of cartel-like marketing agreements among farmers and of orders issued by the Secretary of Agriculture and designed to control the marketing of certain commodities. The unconstitutionality of the processing-tax feature of the Act brought about a general revamping of the 1933 legislation, which was replaced by a more permanent program in 1938 when a new Agricultural Adjustment Act was passed. In a form modified by subsequent amendments, this Act is still in force. Crop restriction is nominally placed in the service of soil conservation, and benefit payments to conforming farmers are financed out of the general fund of the Treasury, eliminating the need for processing taxes. Benefit payments were later abandoned. Instead, the government places principal reliance on another weapon to restrain production indirectly. In the case of the threat of a surplus of farm commodities that might impede the flow of interstate commerce, the Secretary of Agriculture is authorized to impose marketing quotas on the producers of such commodities, after these have been given an opportunity to express their preference by means of a referendum. If producers in their sales exceed the marketing quotas allotted to them, they are made liable to the payment of penalties equaling a certain percentage of the proceeds from such excess sales.

The marketing agreements feature of the Agricultural Adjustment Act of 1933 were revived in the Agricultural Marketing Agreement Act of 1937. This statute authorized the Secretary of Agriculture to control prices and other conditions of the marketing of milk and other products, provided a certain percentage of the producers and distributors concurred with his program. Both this Act and the new Agricultural Adjustment Act were held constitutional by the Supreme Court.[2]

The Agricultural Adjustment Act of 1938 also prescribed so-called "nonrecourse" loans on farm products at a rate determined as a percentage of their parity prices. As the loan rate is often in excess of market prices, the government has to take over the collateral in such cases. The nonrecourse loan can be repaid or not at the discretion of the debtor. If market prices rise over the loan rate, he will repay the loan and dispose of the collateral himself. If they fall short of the loan rate, he can abandon the collateral with impunity. Mandatory nonrecourse loans are, in effect, a standing offer to purchase.

In summary the federal farm program operates with the help of the following devices: (1) marketing quotas, with penalties for farmers selling in excess of the quota; (2) marketing agreements to control prices and

[1] *United States* v. *Butler*, 297 U.S. 1 (1936).

[2] *United States* v. *Rock Royal Cooperative*, 307 U.S. 533 (1939); *Mulford* v. *Smith*, 307 U.S. 38 (1939).

other marketing conditions; and (3) nonrecourse loans and outright purchases by the government.

These devices were of fundamental impact on the structure of the farm business. Its competitive organization had proved a drawback in a world of monopolies and impurities of the market. Without government stimulation and help, farmers had not been able to form combinations in any important manner. True, there had existed various co-operative organizations, privileged by special legislation and tax benefits. But the agricultural adjustment program enabled the farmer, for the first time, to engage in large-scale collective action. What one farmer, acting in isolation, could not achieve—the control of prices by means of control over the supply—was now made possible by means of a federal plan to which farmers were made to conform in their production and selling policies. Penalties and rewards were the instruments used to achieve conformity. Moreover the marketing-agreements program, in a more direct manner, encouraged the formation of combinations in specific fields of production and gave official sanction to their activities.

Agricultural Acts of Recent Years. Agricultural acts of recent years have retained the fundamental structure of the 1938 legislation, with its acreage allotments, marketing quotas, marketing agreements, nonrecourse loans, and outright purchases. During most of the war period the mandatory minimum support for "basic" commodities—corn, cotton, wheat, rice, tobacco, and peanuts—was raised to 90 per cent of parity and 92½ per cent in the case of cotton. After the end of the war the wartime support rates were retained for some time in order to allow farmers a period for making adjustments to the reduced peacetime needs. Legislation drawn to meet these requirements was passed as early as in 1948, but it was held in abeyance for a period of transition that was extended time and again. The farm interests stuck to support at 90 per cent of parity for the basic commodities, while permitting the passage of legislation that authorized, for the future, price support on a sliding scale, ranging from 75 to 90 per cent in the 1949 Agricultural Act. It was hoped that such a sliding scale of support would enable the Department of Agriculture to adjust the program in the light of the supply situation of the various commodities, discouraging the production of some by reducing support and encouraging the production of others by maintaining or raising support, all within the limits specified by formulas. The new parity and the sliding scale did not supersede the old arrangements until the mid-fifties.

Meanwhile, in 1950, Secretary of Agriculture Charles F. Brannan had announced another plan, which failed of passage at that time, although it came to be applied to wool in 1955 and its wider application has been debated ever since. Under the Brannan Plan, there would be no more government purchases to stabilize prices. Instead, farmers would sell at free market prices and, in turn, receive "parity cash payments" equal to the

difference between the free market and the support price. This plan would have brought great benefits to the consumers, who would have obtained farm commodities at lower prices. Farmers would not have been financially worse off under the plan, but they resisted it nevertheless. They desired the continuation of arrangements under which the government bestowed benefits upon them by the purchase of their products. This they considered more in keeping with the ideals of the free market and the free enterprise system than government payments without accompanying purchases.

In 1956 the reduction of acreage by means of allotment plans was supplemented by the so-called "soil bank program." Under one feature of this program, a feature that soon was discarded, farmers received benefit payments if they reduced their acreage below the allotment and put their land into an annual "acreage reserve." Under the second feature, which has proved more durable, farmers were given monetary inducements to take their crop land out of production and put it to conservation use for 3, 5, or 10 years, planting grass or a tree cover ("conservation reserve"). As the 1950's came to their close, mandatory sliding-scale supports, which had to be granted according to rigid formulas, failed to avert the accumulation of ever-rising surpluses. It is very hard to deflect farmers from the business of producing. When supplies increased and support prices were lowered according to formula, improved techniques of production and farmers' difficulty in shifting out of agriculture tended to perpetuate production. Acreage control had for long proved ineffective as the increased yield from the reduced acreage more than offset the effects of retiring some land from cultivation. The acreage-reserve feature of the soil bank was dropped after two years because it proved too costly relative to the amount of land that was retired. Many farmers placed their less productive land into the soil bank and operated the remainder more intensively. Some even acquired land to put it into the soil bank for profit, and others canceled the effect of retiring some of their land by cultivating land held fallow before.

In 1960 government stocks of accumulated farm commodities reached a value of $10 billion, with carrying charges in excess of $1 billion a year (see Fig. 66). For many commodities, the quantities stored were the equivalent of several years' domestic consumption, or of still more years of exports. Annual expenditures of the federal government for the U.S. Department of Agriculture were exceeding $5 billion. Imports of farm products continued to be under a regime of quantitative controls through quotas, as they had been since the 1930's. Exports of wheat, feed grains, and cotton took place at prices below the domestic ones, the government contributing subsidies to offset the differential between the domestic prices and the lower world-market prices. Large quantities of agricultural products were shipped abroad under Public Law 480 of 1954, mainly to underdeveloped countries and to be paid for in "counterpart funds" in the currencies of these countries (see Fig. 67).

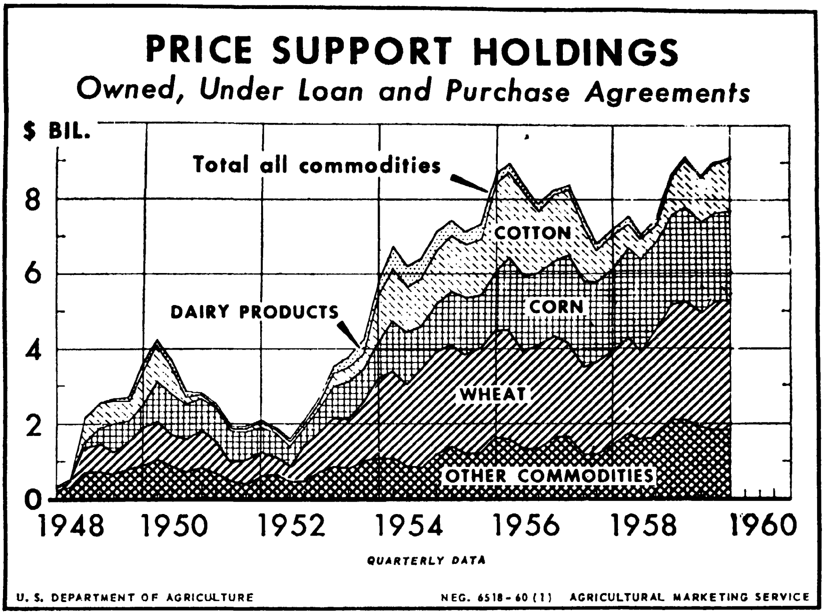

FIG. 66. The cost of the agricultural surplus commodities presently in government storage is $10 billion. From U.S. Department of Agriculture.

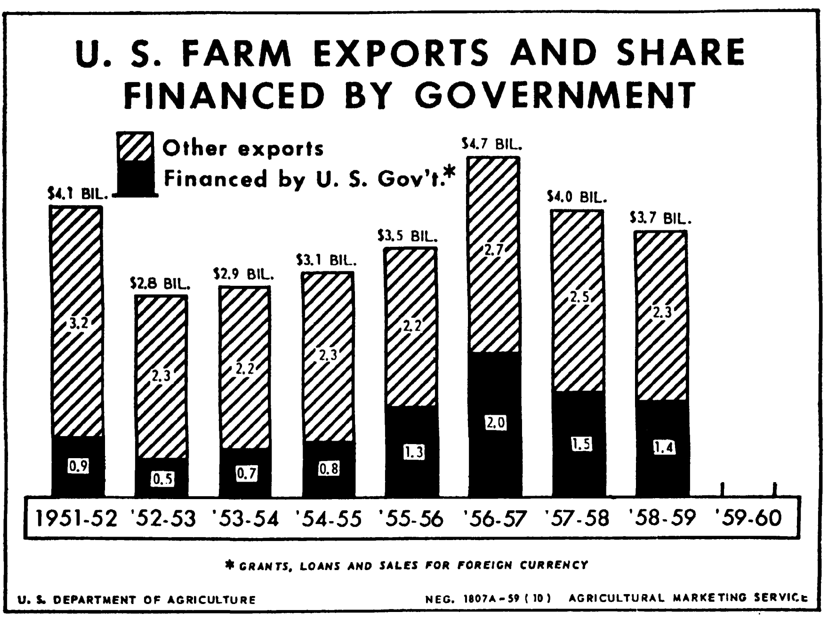

FIG. 67. A large part of farm exports is financed by the U.S. government and sent abroad under various surplus disposal programs. From U.S. Department of Agriculture.

As the combination of price supports and acreage restrictions had proved so ineffective to stem the tide of surpluses, Ezra Taft Benson, President Eisenhower's Secretary of Agriculture, eventually proposed a policy of reduced price supports and more liberal acreage allotments. Farmers voted in favor of the elimination of acreage restrictions on corn with the crop year of 1959, coupled with lower support prices. This was done in accordance with the farm bill of 1958, which also introduced the new formula for price supports for corn at 90 per cent of the average open-market price during the three years preceding a given crop year, but no less than 65 per cent of parity. For cotton and rice the minimum support was to be 70 per cent of parity in 1961, and 65 per cent in subsequent years. The new bill did not include wheat, for which it was not possible to find an arrangement acceptable to all concerned.

Soil Conservation. The Agricultural Adjustment Act of 1938 combined the purposes of soil conservation and output restriction by placing premiums on the withdrawal of crops which were in oversupply and which, at the same time, threatened with exhaustion the regenerative powers of the soil. The principal example of such a crop was cotton. The production of soil-conserving crops, on the other hand, was to be encouraged. Federal payments for conservation practices have continued since then, although their scale was somewhat reduced in view of the prosperous conditions in which farmers found themselves during and after World War II.

Conservation needs are said to be extensive. Erosion or depletion affects some 300 million out of 1,100 million acres of farm land. Only a small proportion of the affected area—perhaps 5 per cent—is at the present time cultivated with proper methods and rotations. Completion of the over-all program of regenerating a sizable portion of the critical area thus requires sustained efforts over a considerable number of years. Almost one fourth of all farm land is being utilized under conditions that will impair the productive capacity of the soil within five to fifteen years. Another fourth will suffer from such impairment in 15 to 30 years. The remaining half is considered safe for another thirty years.

All states have passed laws modeled after the pattern established by the federal Soil Conservation Service and providing for the establishment of soil conservation districts. The districts, of which there are close to 3,000 with close to 2 million co-operators, have educational programs as well as action programs designed to stimulate such conservation practices as contour farming, cover and strip cropping, seeding range and pasture, tree planting, terracing, draining, and irrigation.

There is a special long-range federal Great Plains program under which the federal government contributes to the cost of conservation measures designed to avert drought losses and the return of conditions which turned the region into a Dust Bowl in the 1930's.

Since 1954 there has been also a federal small-watershed program under

which the federal government undertakes the construction of small dams for flood control purposes in conjunction with conservation work on nearby farms and ranches.

Since 1956 there is in operation the conservation-reserve feature of the soil bank under which farm land is retired and planted with grass or trees.

The promotion of conservation practices by means of public policies and special inducements is considered necessary, because private individuals rarely take in their business decisions a long-term view that would call for conservative management. Erosion and depletion cause damages that may not be severely felt by the present generation of occupiers of the land. As conservation entails current cost or current loss of potential gain, present users may show little interest in averting damages whose incidence will be felt in the distant future.

The conservation problem is acute in the case of many natural resources. In some states there is compulsory legislation with regard to cutting practices on privately owned forest land, and in a few states any cutting is prohibited in certain public forest preserves—a regulation that might go too far. The growth of timber requires a gestation period varying from thirty to a hundred years. Financial incentives in the form of high prices alone will not promote a policy of sustained yield on the part of the forest owner. Contrariwise the rate of cutting may be unduly speeded up when prices are high. The private ownership of forest resources is thus supplemented by the public acquisition of forest land. However, certain private owners, and especially corporate ones, can and do take the long view and carry on long-range forestry programs. This is true, for example, of a number of paper companies, which are profoundly interested in the maintenance of an adequate reserve of raw materials.

While conservation is designed to maintain our land resources in productive condition, the practice of reclamation adds to our supply of productive land. This is done by government-sponsored irrigation projects, which are a feature of the eleven Western states, where the regional interests give strong support to them. On the irrigated land, a great variety of products are turned out, including some of which there is a national surplus as well as others of which there is no such surplus. Some of the effects of reclamation thus may run counter to the objectives of our national farm policy, which aims at the reduction of surpluses. Reclamation projects are undertaken nevertheless, for the sake of the regional economy of the West and also to add to our reserve of productive land to meet a potential increase in requirements.

Public Policies and the Family Farm. The vast majority of the labor force engaged in agriculture is composed of self-employed persons, operators, and family workers on family farms. Hired workers constitute only about one fourth of total farm employment. The typical farm continues to be a family enterprise and is thus quite unlike the representative concern

in manufacturing and such branches of business as are characterized by corporate control and concentration.

Farm tenancy has declined since 1935, and three fourths of our farms are operated by their owners. The decline in tenancy has become most pronounced during World War II, due to the scarcity of suitable operators as well as to the generally prevailing liquidity which made additions to the size of the farm financially feasible. An increase in the average size of the farm has indeed been observed for many decades. The average farm was 138 acres in 1910 and 211 acres in 1950, with the increase becoming especially pronounced after 1935. As farming has become mechanized, the amount of capital required in farm operations has steadily increased. Under present conditions, to start operations in commercial farming requires an investment rarely less than $100,000.

By no means all of our farmers are commercial farmers. Some 90 per ment of the food and fiber that is sold in the market is produced on 2.1 million commercial farms. In addition, there are 2.7 million other farms which produce relatively little for the market. The reader will note that the numbers of farms refer to census data for 1954. They are now less. People living on these farms raise products for home use, and three fourths of their income is derived from sources other than farming. Many of them have low incomes and suffer from disguised unemployment, that is, their employment fails to utilize adequately their productive capacities.

The commercial farmers have been the principal beneficiaries of the government price-support programs, since the others, the majority, produce so little for the market. The low per capita income of the farm population—approximately one half of that of the nonfarm population—includes the commercial farmers as well as the noncommercial ones, and it does not reflect the economic position of many commercial farmers. Neither does the average government expenditure for agriculture per farm—over $1,000 per year, not all of which of course accrues to farmers. Many commercial farmers receive many times this amount in a year, and only since 1960 is there a ceiling on government price support payments, amounting to $50,000 for each crop grown by a farmer. Farmers who produce for the market have enhanced their position by forming marketing organizations of all types, and some of these have expanded into the field of processing. The farm real estate debt has been below 10 per cent of the value of the real estate since 1945. From 1929 through 1944 this was never below 10 per cent and as high as 20 per cent in 1929 and over 27 per cent in 1933, during the depth of the depression. The value of farm real estate has increased substantially faster than the prices of other goods. Together with the appreciation of other farm assets, this has yielded the farmer substantial capital gains in every year except three since 1940, amounting to over 40 per cent of the average net income of farm operators per farm for the average year from 1940 to 1959. While not all these capital gains

have been realized, they nevertheless represent a factor that should be considered in conjunction with per capita farm income. Its importance would be much more conspicuous if it were calculated for commercial farmers rather than for the average farm operator.

The favorable economic position of many farmers is also reflected by the low annual foreclosure rate. Since 1944 this rate has only rarely been higher than 2 per 1,000 farms. Between 1929 and 1940 it never was below 10; it was 15.7 in 1929 and as high as 38.8 in 1932, before the passage of the adjustment legislation.

Political Strength of Farmers. Whether the farmers will continue to derive benefits from an economic position that is held on the basis of increasing public disbursements and growing surpluses will depend upon their political strength. Agriculture is organized in three great bodies: the American Farm Bureau Federation, National Grange, and National Farmers Union. The Farm Bureau and Grange speak primarily for the commercial farmers, while the Farmers Union represents the small and low-income farmers but includes commercial farmers as well. The Farm Bureau was instrumental in the formulation of the agricultural adjustment program and the parity price concept. It now favors the elimination of controls, but with the conservation reserve constituting a sizable interim measure. The Farmers Union is in support of liberal payments to farmers, combined with strict controls over output. The diminishing size of the farm population has tended to weaken the political influence of the three farm organizations, as has the rise of new associations composed of the producers of specific commodities. These are not rent by internal dissension, and as they do not represent a variety of different producing interests, their proposals often are more articulate and straightforward than those of the big three. In addition, there is effective representation of the farm co-ops by the National Council of Farmer Cooperatives.

HOW TO SOLVE THE SURPLUS PROBLEM

Various proposals have been made to solve the problem of farm surpluses, some aiming at the elimination of surpluses and others at their more effective utilization.

Withdrawal of Price Support. Some propose that the government should stop the subsidization of agriculture. In a free market, they say, there are no surpluses because the quantity supplied is adjusted to the quantity demanded. As long as the quantity supplied exceeds the quantity demanded, prices will fall until equilibrium is reached at the price which equates both quantities. At the lower prices of farm products, only the most efficient farmers would be able to stay in business. The expansion of foreign production in response to high American prices would stop, and exports of wheat and cotton would no longer require government subsidies.

As the government outlay for the farm program is reduced or eliminated, taxes can be cut by several billion dollars, allowing a moderate expansion of consumption along nonfarm lines. The government could also use part of the freed funds for the satisfaction of public needs. This would be accompanied by the movement of resources—labor and capital—out of agriculture and into more productive uses. It would do no more than accelerate what already was taking place during the 1950's: an average annual net migration from farms of about 1 million people.

The opponents of this proposal refer to it as "adjustment by bankruptcy." They argue that the distress of the farm population would spread to the suppliers of farm machinery, fertilizers, and other farm needs, and to the country towns which cater to the demand of the farmers. Only under conditions of vigorous economic growth would it be possible to place the surplus farmers into city jobs. They say that our cities already are swollen, sprawling, and ungainly, and they raise the question whether the drift of the farmers to the cities would make the United States a better country.

As regards the anticipated expansion of foreign trade, the critics point to the rise of agricultural production in the Soviet bloc, which might constitute increasing competition. With respect to wheat specifically, it is only in the underdeveloped countries that per capita consumption can expand significantly. These countries have no means to pay for large commercial imports. In Europe the spread of prosperity has resulted in a shift from wheat consumption into protein-foods. Moreover, the establishment of the Common Market has placed overseas suppliers in a disadvantageous trading position as discriminating duties are placed on their exports. Agricultural protection in Europe has brought about a substantial increase in wheat production, and countries such as France, Italy, and Sweden, which used to be importers of wheat, are now exporters.

Forward Prices for Agriculture. The proposal of "forward prices" for agriculture is connected with the name of Professor Gale Johnson of the University of Chicago. By this is meant arrangements that would dispel farmers' uncertainty about the future course of the prices of agricultural products. Price supports should be withdrawn gradually, and farmers given guidance as to what prices they could expect after, say, a decade of transition. During this time the government stocks should be disposed of as foreign aid, but the use of foreign aid programs as a means to dispose of surpluses should then come to an end. This is necessary because such use places competing friendly nations such as Canada, Mexico, and Australia at a disadvantage as they are deprived of outlets for their commercial exports. In some underdeveloped countries the donated American agricultural surpluses may replace commercial imports and disturb the established channels of trade. As a consequence, these countries may lose markets for their own exports to their former suppliers of agricultural prod-

ucts, and they may become clients of the Soviet Union, which is ready to offer them a market for their products.

The gradual reduction of price supports during a five-year period would bring agricultural prices close to free-market prices and enable the farmers to adjust themselves to the new circumstances. After five years prices would no longer be supported with the aim of influencing them over long periods of time, and farmers should be so informed. After that time price supports would only be used to offset annual fluctuations of the supply, so frequent and unpredictable in the farm business, and to reduce the resulting uncertainty regarding agricultural prices.

Professor Johnson's proposal is based upon an intimate knowledge of the farm business, in which the partnership with nature creates conditions of uncertainty that in turn are responsible for much of the instability of prices and production if left to themselves. As Professor Johnson proposes only the gradual elimination of price supports of the conventional type and the retention of price supports for the special purpose of reducing uncertainty, his plan would not be accompanied by the drastic consequences which the complete elimination of price supports in one step would have. His plan, however, requires a long-term program, which the Congress would have to endorse in advance.

Production Controls and Direct Payments. The Farmers Union and certain other spokesmen of the farmers insist that the agricultural establishment can not operate in a free market, facing giant labor unions and huge business units that administer prices and wages. In view of the acknowledged failure of acreage controls they would replace these with strict controls over each farm's production calculated on the basis of national requirements. This would put an end to the surpluses. To attain "parity income," farmers would continue to receive government aid, but this would be made available, as under the Brannan Plan (see p. 637), in the form of direct payments to farmers rather than in that of price supports which raise prices to consumers at home and abroad. Such direct payments are indeed a more rational and effective way to aid farmers, and their use has been endorsed by numerous high authorities in the field of agricultural economics, including the late Professor John D. Black of Harvard University and Professor Willard Cochrane of the University of Minnesota, both former presidents of the American Farm Economic Association. However, the proposed control over each individual farm's production in line with a national production plan would offend all those who are opposed to this type of government planning and control.

Conservation Reserves. Those inclined to less fundamental reorganizations would favor the continuation of present programs, especially the retirement of crop land and its transfer to the "conservation reserve" of the soil bank (see p. 638). As more land is under tree cover or planted with grass, this should be accompanied by vigorous efforts at facilitating the

movement of farmers into nonfarm employments by increasing their occupational mobility through training programs and in other ways.

There are those who consider the arrangements under the conservation reserve, though they are for terms of several years, as unduly short-lived, and they would rather see the government pursue a more permanent program of retiring farm land by means of outright purchase or through the acquisition of easement rights.

Increased Domestic Disposal. Some have proposed that the government surplus stock of food should be dispersed to more easily accessible locations to provide a reserve for wartime emergency use. Others would expand domestic food distribution programs. There are such programs now in the form of the school lunch program and one of food distribution to the needy, under which over five million people receive free food from the government stocks. There would be a chance for an expansion of this program if the Department of Agriculture were to revive the Food Stamp Plan, which has operated with great success in earlier years and under which needy people were allowed to purchase food at lower prices through the ordinary channels of distribution (see p. 130). Congress in 1959 authorized the Department to undertake such a program of a scope of $200 million, but the Department did not make use of the authority, claiming the plan to be impossible to administer.

Food for Peace. The surplus disposal program under Public Law 480 considers shipments of food to needy foreign countries as a mere means to dispose of our surpluses and as an emergency program requiring frequent review by the Congress. Senator Hubert Humphrey of Minnesota among others has proposed a reorganization of this program under which it would become an instrument of our foreign policy and serve the more positive purpose of providing "food for peace." Under this proposal, the program would be placed on a long-term basis, and it would be conducted by a Peace Food Administration that would co-operate with foreign suppliers.

This latter feature is indeed an important aspect of the plan since our disposal program, although it is designed to provide supplementary products, may cut into the established markets of friendly nations, especially so in years when the respective food supplies are large. It could be expanded and turned into a more effective instrument if it could be made sure that shipments under the program would supplement rather than replace commercial imports. In view of the low caloric intake in many underdeveloped countries, there surely is need for supplementary rations, and it is far better to make them available to the needy abroad than allow them to rot in government warehouses.

Some measure of international co-operation in this matter is already accomplished. In 1959 there was formed a standing five-nation committee composed of the United States, Canada, Australia, Argentina, and France, which is to co-ordinate the donations of wheat by the members. Canada

would want to expand the program into a world "food bank," with a pilot program limited to wheat.

A World Food Bank. An international program of this type has frequently been proposed by the Food and Agriculture Organization of the United Nations, which has been in existence since 1945. When this organization was established, it was considered likely that it would assume an important role in the accumulation of world-wide food reserves and their channeling from regions of surplus to areas of need. It has made two attempts, in 1947 and in 1949, to form an "ever-normal granary" or world food bank, but at that time, when shortages were still pronounced, its proposals fell on deaf ears. In 1960, however, the suggested establishment of an international food reserve under United Nations auspices was endorsed by President Eisenhower.

SUMMARY

In all nations economic progress is accompanied by a relative increase in nonfarm enterprises and a relative decrease in farm enterprises and the farm population. In 1820, over two thirds of our gainfully employed were in agriculture. By 1960, their proportion had fallen to one eighth. The decline in the farm population was promoted chiefly by the higher rewards available in urban employments. In spite of the rural exodus, there is, however, a persistent discrepancy between urban and farm incomes.

Farmers have been able to obtain public aids of various types. Their situation is special in that they carry on their business in small, competitive units, whereas the remainder of the economy has become organized in large trading bodies. The farmers' control over their supplies is further limited by their close association with nature. Productivity of labor employed in farming as well as yields per acre have increased by leaps and bounds in the face of a relatively inflexible consumption pattern. All these factors have contributed to making pleas for government help successful.

Since the 1930's the traditional public aids to agriculture—education, research, highway construction, etc.—have come to be supplemented by a variety of far-reaching controls and regulations. Farmers were paid benefits for the planned restriction of acreage and for the application of soil-conservation practices; they were penalized if their sales of certain crops exceeded government-determined quotas; and they were authorized to form what, in effect, amounts to collective trading bodies. A large part of the farm program was designed to raise prices toward the level of parity, bringing about the restoration of the pre-World War I relationship between the prices received by farmers and the prices paid by them.

Acreage control and price supports have been relaxed since the late 1950's but surpluses of many agricultural products are mounting. More effective policies are now sought to avert the continued growth of the

surpluses and facilitate their disposal. Some propose the withdrawal of price supports. Others would replace them by production control and direct payments to farmers. Still others aim at the more complete satisfaction of domestic and foreign needs for our agricultural products.

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STUDY QUESTIONS

1. What factors account for the understatement of per capita farm income as compared with nonfarm income?
2. What has been responsible for the rapid increase in agricultural productivity in recent decades?
3. What is meant by "parity prices"?
4. In what manner has the parity concept been modernized?

5. What are nonrecourse loans?
6. What type of soil bank is still in operation?
7. What is the Brannan plan?
8. What are the principal farm organizations and what are their programs?
9. What are the principal measures of soil conservation?
10. Why does the government support conservation measures?
11. What are the relative proportions of subsistence and commercial farmers?
12. What have been some problems connected with the surplus disposal program?
13. What is meant by Public Law 480?
14. What accounts for the ever-rising surpluses of agricultural products stored in government warehouses?
15. Which agricultural products of the United States have important foreign markets?
16. How do you propose to resolve the farm problem?
17. How important is farm tenancy in the United States?
18. Is the family farm still typical in the United States?
19. In terms of dollars, what would be the effects of withdrawing government price support from agricultural products?
20. What are the obstacles to strict control over agricultural production?

Chapter 25 PROBLEMS OF REGIONAL ADJUSTMENT

The United States is composed of a variety of regions which differ in numerous economically relevant respects. The proper criteria for the delineation of a region are established by the science of geography, more specifically by economic geography. Their detailed discussion is beyond the scope of our present interest.

Generally the delineation of a region depends upon the point of view of the investigator. While the geologist may characterize as region a territory identified by a certain soil formation, the economist will attach no special significance to this phenomenon. He will emphasize such factors as the relative size and composition of incomes, the type of economic activity, or the types of commodities that are exchanged. The fact that differences in the point of view are all-important in the definition of regions is, perhaps, best illustrated by the diversity of the boundary lines of the districts into which the various departments of the federal government have subdivided the national territory. A study prepared during the thirties listed 74 federal agencies which have designed sets of regions for defining the jurisdiction of their field agents. For this purpose, these agencies employed no less than 108 separate regional schemes. It is obvious that agencies with such diverse functions as the Corps of Engineers, the Federal Reserve System, or the Interstate Commerce Commission are guided by different considerations when they establish the boundaries of their administrative subdivisions.

The most general characteristic of a region is the commonness of the features which distinguishes it from other regions. In this chapter, three regions of the United States have been singled out for special study, the South, the West, and the New England region. The South's and the West's unique distinction derives from the rapidity of economic growth which

prevails in these regions. The New England region provides suitable material for a case study of an area that has to cope with the problem of economic maturity.

In the 1930's poverty was so widespread in the South that President Roosevelt referred to the region as the nation's economic problem No. 1. In the 1940's, New England was found to suffer from stagnation—economic arteriosclerosis, as some said. In contrast with these times, the present economic problems that arise from maladjustment or unemployment are not localized within certain regions. They are not the problems of regions but rather of occupations or industries. The problems of agriculture are an example, and so are the pockets of unemployment that can be observed in the coal mining towns of the Eastern and Midwestern states, the ills that beset the textile industry regardless of location, the effects of technical progress and automation which are felt in the steel towns and centers of the automotive industry, and the economic problems which plague the aircraft industry.

Both the South and New England have mastered the problems of economic change. Their regional economies are studied in the present chapter as case studies of successful economic adjustment.

If the economic problems of maladjustment or unemployment are diffused over wide parts of the whole country rather than localized within the narrower confines of states or regions, it can be expected that the economic differences between states and regions as measured, say, by per capita personal income, have narrowed. This is indeed the case, as Table 39 shows.

TABLE 39

REGIONAL PER CAPITA PERSONAL INCOME IN PER CENT OF PER CAPITA PERSONAL INCOME IN THE CONTINENTAL UNITED STATES, 1929, 1959*

Region	*1929*	*1959*
United States	100%	100%
New England	125	111
Mideast	138	117
Great Lakes	114	108
Plains	81	91
Southeast	52	72
Southwest	67	87
Rocky Mountain	85	92
Far West	129	118

* *Survey of Current Business*, August, 1960, p. 11.

Per capita personal incomes in the various regions are much more nearly equal than they were thirty years ago. In 1929 per capita personal income in the Mideast, the region with the highest per capita personal income, was 138 per cent of the national per capita personal income, whereas the South-

east, with the lowest, had only 52 per cent of the national one. The span then was one of 86 percentage points. In 1959 per capita personal income in the Far West, now the region with the top figure, was only 118 per cent of the national average, while per capita personal income in the Southeast had risen to 72 per cent of the national one. The distance between the high and the low thus was much reduced, amounting only to 46 percentage points.

ECONOMIC GROWTH IN THE SOUTH

The Southern Region. There is no common standard that would enable us to determine unequivocally the extent and boundary of the region loosely referred to as the South. The national income statistics distinguish between the Southeast and the Southwest, the former including Virginia, West Virginia, Kentucky, Tennessee, the Carolinas, Georgia, Florida, Alabama, Mississippi, Louisiana, and Arkansas; and the latter, Oklahoma, Texas, New Mexico, and Arizona. The Bureau of the Census lists three regions, South Atlantic, East South Central, and West South Central. The South Atlantic region covers Delaware, Maryland, the District of Columbia, Virginia, West Virginia, the Carolinas, Georgia, and Florida. East South Central includes Kentucky, Tennessee, Alabama, and Mississippi. West South Central extends over Arkansas, Louisiana, Oklahoma, and Texas (see Fig. 68).

MAP OF THE CONTINENTAL UNITED STATES, SHOWING CENSUS DIVISIONS

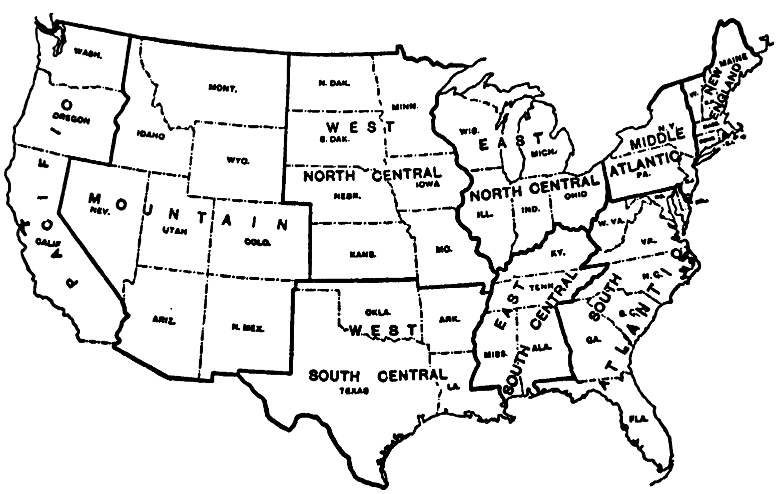

FIG. 68. Regional boundary lines may be drawn for a variety of different purposes. This map shows census divisions. Source: *Statistical Abstracts.*

Income in the South. The enormous economic progress which has been made in the South within the lifetime of one generation is reflected in the

relative changes of the region's income. In 1929, per capita personal incomes in the Southeast and Southwest were 52 and 67 per cent of the national average. Thirty years later each figure had risen by 20 percentage points. During the same period, the United States per capita personal income increased by 208 per cent, while the two regional per capita personal incomes increased by 325 and 298 per cent. The average Southern incomes still are the lowest in the country, but as they have risen much faster than the national average, they are not nearly as low relative to the national average as they used to be.

This is reflected by great progress in education and health. Not so long ago the ratio of public expenditures per student enrolled in public schools in New York, where these expenditures are the highest, to those in Mississippi, where they are the lowest, was about 9 to 1. Now they are about 3 to 1. Infant mortality rates, which used to be far higher in the South than for the nation as a whole, are still higher there, but again the difference has been much reduced.

Population Growth. As Southern incomes have risen and more people have found employment in city jobs, the birth differential between the South and other parts of the country has diminished. Population growth in the South, however, is still more rapid than elsewhere, and the South continues to be a feeder of internal migration in northern and western directions. This is true of the East South Central and West South Central regions, from which there occurred a net outward migration of 1.6 million people between 1950 and 1957. It is not true of the South Atlantic region as a whole, which during the same time has had a net inward movement of .5 million people, reflecting the movement of over 1 million people to Florida.

The outward migration of people from the South has been an important factor making for the greater equalization of incomes and wages throughout the country. Southern wages have been lower than Northern ones since ante-bellum days, and people have moved away from the South, motivated by the pull of economic opportunities elsewhere. In recent years, however, the marked improvement of the economic position of the South has created new opportunities in urban employments, which have restrained the movement of the population to other regions of the country. Indeed, in 1950, apparently for the first time, the South contained its surplus farm population in the urban and suburban communities within its own borders.

Problems of Southern Agriculture. In 1920, Maryland was the only state among the Southern census subdivisions which had more than 50 per cent of its population residing in urban communities. Between 1930 and 1950, Louisiana, Oklahoma, Texas, and Florida reached the 50 per cent mark. Thus the proportion of rural residents, while on the decline, is still a large one, especially in the East South Central states. Most of the rural residents gain their living from farming.

The relative strength of agriculture in the South accounts to a large

extent for the low level of incomes in the South compared with the rest of the country. As has been seen in Chapter 24, farm income tends to be below the income earned in other employments. In the three Southern census subdivisions the farm population was 39 per cent of the total in 1940, compared with 23 per cent for the United States as a whole. By 1950, however, the farm population had fallen to 25 per cent in the South and to 16 per cent in the country at large. In approximate terms the South, with nearly one third of the total population, has close to one half of the farm population of the United States. The incidence of low farm income thus is borne more heavily by the South than by other regions.

Though much less so than in the past, Southern agriculture still is based to a large extent on the production of a single cash crop, cotton. The predominant role of cotton in the Southern economy is a legacy of the past—of the plantation system and the institution of slavery that was attached to it. The South contributes 80 per cent of the United States cotton output. There are a few other crops—tobacco, sugar cane, and peanuts—of which the Southern output is similarly large. Southern agriculture is deficient in the production of food and feed needed in the region, but here again recent progress has been rapid.

The importance of cotton production, diminishing as it is, makes the welfare of a broad section of the Southern population dependent on the vagaries of a cash crop which offers opportunities that are subject to violent fluctuations. If cotton prospects are favorable, Southern purchasing power is adequate to buy needed food and feed from other regions. If cotton prospects are poor, Southern purchases of goods are severely depressed.

Progress in the mechanization of cotton production is bound to confront the South with difficult problems of adjustment. The mechanical cotton picker, heralded for decades, is likely to displace a considerable portion of the labor force attached to cotton production. The production of cotton and of tobacco, the other Southern staple, has to this day remained among the least mechanized branches of agriculture. If mechanization progresses, the pressure of the population on available land resources will increase.

The difficulty created by technical progress in cotton production is illustrated by the fact that one man equipped with a mechanical cotton picker can pick as much cotton in a day as a hundred or so ordinary hand pickers. Mechanical cotton pickers and strippers are constantly being improved, and they are widely applied in the plains, where labor has been replaced at a rapid rate.

As technical progress has increased the yield of cotton, facilitating an expansion of production with less input of labor and land, this has freed resources and brought about a rapid increase of livestock production in

the South. In many Southern states, and their number is rising, more cash is being earned now from livestock than from cotton production. In Kentucky, livestock has moved ahead of tobacco. The decline of cotton and its replacement by hay and rotation pasture bids fair to reduce soil losses in the South.

The Growth of Southern Industry. Before World War II, Southern manufacturing employment was 16 per cent of the United States total. Since then it has risen to over 20 per cent. One Southern state, Texas, was among the eight states that ranked highest in the over-all value of their respective wartime expansion of industrial facilities. In this state, the oil industry served as a basis for expansion into aviation gasoline, synthetic rubber, and the petrochemical industry. The South now contains more than one third of the country's chemical processing industries. One half of all the new chemical plants that have been constructed in the 1950's are located in the South.

Chemicals and chemical processing may have become the South's biggest industry, running ahead of the textile industry, which traditionally has been the mainstay of industry in the South. The South has come to produce 90 per cent of the chemical intermediates for the plastic industry and 90 per cent of the nation's synthetic rubber. It contributes nearly 80 per cent of the United States rayon and acetate production and virtually the entire output of the synthetic fiber industry. Most of these developments are heavily concentrated along the Texas-Louisiana Gulf Coast. New centers of industry have arisen in the Houston-Galveston and Dallas-Fort Worth areas.

The contribution of the South has become notable also in shipbuilding, aircraft manufacture, and aluminum production. Other industries in whose growth the South has its share include lumber, paper and pulp, food processing, clothing, furniture, electrical appliances, and iron and steel. Proximity to raw materials and the availability of a plentiful, relatively low-paid, and docile labor force were important factors that stimulated the growth of Southern industries. The Birmingham iron and steel industry uses raw materials that require movement over only a small fraction of the distance which separates such materials from other centers of heavy industry in the United States. The South contains within its borders a number of new resources of importance for the chemical industry. The movement of industry to the South was promoted also by the desire to disperse new places of production, and it is supported by the vigorous growth of the output of electrical energy and natural gas. Approximately one half of the natural gas produced in Texas is retained for use within the state.

The textile industry stands out among the few branches of manufacturing in which the South had already attained considerable prominence before World War II. Textile mills provide employment for about 25 per

cent of Southern industrial labor. Eighty per cent of the textile industry is now located in the South; and 20 per cent in New England. Sixty years ago the proportions were exactly the reverse.

Southern Promotional Techniques. The recent growth of industry in the South is the result not only of the economic advantages of the region —plentiful labor supplies and natural resources—but also of certain institutional factors. These have been widely advertised throughout the nation in order to attract new industries and cause established industries to move to the South. By means of vigorous campaigns the attention of businessmen is directed to the fact that labor and raw materials are plentiful in the South and that the rapid growth of the region has given it new strength as a market for consumer goods and for the requirements of industry. Southern chambers of commerce and specially constituted promotional agencies of the Southern states draw attention to the lower level of state and local taxation in the South as compared with other regions; they point out that labor is more docile, less unionized, and less affected by working rules and traditions than is true of the regions of the country in which industry has been established for long. They sometimes offer a new enterprise a "tax holiday" which will exempt it from local taxation for a specified period of time, and they have especially attractive arrangements for financing the construction of new plants. The municipality, in many cases, will issue low-interest bonds—whose yield is exempt from the income tax—and with the proceeds of the bond sale will finance the construction of factories which then are leased at low rentals to the new industrial enterprises.

The critics of this method of attracting industries to the South are found primarily among spokesmen of other regions, whose relative industrial position is endangered by the growth of Southern industry. They will point out that the system of bond financing is apt to attract "quickie" industries, which are likely to move again and seek new advantages in other localities and regions, leaving behind them municipal indebtedness and fragile one-industry economies.

The Wage Differential. The wage differential between the South and other regions of the country has been an important factor in the stimulation of Southern industrial growth. The industrial wage level in the Southeast is the lowest in the country, although in the Southwest it is not nearly that low. This observation does not apply with the same force to all the Southern industries; but it holds good, with considerable variations, for most of them. In the face of insufficient mobility the plentifulness of Southern labor relative to capital has been the principal factor accounting for its low reward. As the cost of living in the South does not significantly differ from that of other regions, real wages are not higher than money wages.

The wage differential seems to have much diminished in recent years when industry in the South manifested such marked growth. As an over-

all approximation, it may have been 25 per cent in the early 1940's and half as much in the 1950's. In the steel industry the North-South pay differential was virtually eliminated in 1954, after it had been much reduced before. The movement of a relatively depressed industry, such as the textile industry, continues, however, to be influenced by wage differentials.

The significance of the wage differential is further diminished by the extreme diversity of wages sometimes found in the South. In some instances, wage disparities between different Southern localities and firms are a multiple of the North-South differential.

Productivity of Labor. Whether or not the differential in wage rates reflects an inferior productivity of Southern labor is a question which has been debated for a long time. Such evidence as is available seems to support the view that the inferiority, which in the past has often been taken for granted by many authorities, does in fact not exist. When identical jobs are performed under identical conditions, large sections of Southern labor, distributed over a variety of industries, have demonstrated productivity equal to that of Northern labor.[1]

However, in the past more so than now, the conditions attending labor's performance in the South may have been inferior to those in the North. Often the Southern worker was less adequately equipped with capital. Sometimes the quality of management differed. Operating experience may have been unduly short. It may well be that adverse factors such as these were offset by the greater vigor of Southern labor caused by low average age: in 1940 approximately 52 per cent of the South's labor force was under 35 years of age, compared with only 46 per cent in the North. Indeed, calculations made some twenty years ago indicate that at that time the South was characterized not only by lower wage rates but also by lower labor cost. The ratio of value added per dollar of wage cost in manufacturing was considerably more favorable in the South than in the North. If the Northern ratio is expressed as an index with the value of 100, the same index could be calculated at 110 for the Southern census states.[2] This difference indicates that, for each dollar spent on wages in the South, a greater amount was paid out to other factors of production than was paid in the North. From this one might infer that effective labor cost was lower in the South.

Nobody can say with certainty whether or not this is still the case at the present time, after the wage differential has been much reduced. There are indications, however, that labor cost in the South still is relatively low and that the *cost* differential may perhaps be even greater that it was before, in spite of the reduction of the wage differential. Many of the Southern

[1] Richard A. Lester, "Effectiveness of Factory Labor: South-North Comparisons," *Journal of Political Economy*, Vol. LIV, No. 1 (February, 1946), pp. 60–75.

[2] A. F. Hinrichs and Arthur F. Beal, "Geographical Differences in Hours and Wages, 1935 and 1937," *Monthly Labor Review*, Vol. L, No. 5 (May, 1940). See also National Resources Planning Board, *Industrial Location and National Resources* (Washington, D.C.: U.S. Government Printing Office, 1942), p. 225.

industrial installations are new, having been constructed during the immediate past. They are equipped with more capital and with better and more modern facilities than their Northern counterparts. This is true especially of the textile industry. There also workloads are substantially higher than in New England, where the working rules, long established by a firmly rooted tradition, operate to the disadvantage of the employer.

Trade-Unionism in the South. The bargaining position of Southern labor, weaker as it still is than in the rest of the country, had until 1947 been strengthened by the spread of unionism in the South. The development of Southern trade-unions generally reflected national trends, although a number of significant obstacles have been in operation during long periods of time. The agricultural background of most Southern workers, the scarcity of industrial employment opportunities, the role of company towns, the geographical diffusion of industrial plants, the biracial character of Southern labor, and the impediments to universal suffrage and the enjoyment of civil liberties characteristic of many Southern regions have all contributed to retarding the growth of the labor movement. In New England towns, all the textile workers are organized; in the South, no more than 15 per cent. Opposition to trade-unions is still strong, especially among the small and medium-sized employers and the local governments. Since the enactment of the Taft-Hartley Act of 1947, unionization has made little headway in the South. The unions complain that under the Taft-Hartley Act the employer is in a position where he can bring his influence to bear against the formation of a union by persuasion bordering on coercion. Right-to-work laws, which restrict union security by outlawing the union shop, are a characteristic of many Southern states.

Where unionization has been successful in the South, it has brought better working conditions to the employees. This has caused the work to be more attractive to white labor and has reduced employer incentive to search for Negro workers. In some instances, unionization has brought an improvement in the relations between the races, especially as the result of activities of the United Mine Workers. But in other instances, and apparently on the whole, unionization has tended to stabilize the existing job patterns, including the segregation of colored groups.

Factors Retarding Industrial Growth. In the past a number of factors have constituted obstacles to the industrial growth and development of the South. A good part of the Southern industry has always been under the financial control of the East. Southern spokesmen have been eager to point out the evils of absentee ownership that attended Southern industrial growth. They complained that industrial profits were diverted to other regions and that the financial dependency of the South thus tended to be perpetuated. So long as the South is chiefly a region of primary products, its trade terms suffer from the debilities characteristic of the marketing of such products. The South, it was claimed, pays high prices for industrial

products sold in impure markets; whereas the prices of its own staples are determined by impersonal forces operating under competition.

All this has substantially been affected by the vigorous economic expansion during the war and postwar period. People in the South came to recognize that retarded industrial growth is not exclusively a burden: it has enabled the South to utilize the industrial heritage created by the more highly developed regions and to apply the most advanced technologies whenever a new enterprise is called into existence. As Southern industry grew, it was bound to benefit amply from the so-called "external economies" available in an industrially mature enviroment: markets are widened for the purchase of factors and sale of products; specialization can go further; local purchasing power can more easily absorb the products of new industries; and facilities for distribution and transportation improve.

People in the South have been concerned about monopolistic practices enforced by Northern interests; but in a number of cases these practices are of a "home grown" variety. Where prices are artificially increased, Southern consumers suffer as do those of other regions, and if the commodity is a Southern product the concomitant reduction in production diminishes Southern employment and income. Relevant cases have been observed in the markets for cotton print cloth, virtually all of which is made in the South; for fertilizer and its more important ingredients; and for yellow pine, the outstanding lumber for building construction. Price fixing to the disadvantage of the Southern tobacco growers has reduced the receipts of a substantial component of the Southern agricultural economy. In this case prices reportedly were fixed downward by the major tobacco manufacturing companies. An example of restraint on the entry of new industries into the South was the frustration of early attempts at the establishment of a match-manufacturing industry, the result of concerted action between the domestic and foreign monopolists in that field.

For long students of the Southern economy have also insisted that another factor retarding economic growth in the region is related to the cost of transporting goods within the South and from it to other regions. As noted in Chapter 17, there are two principal ways of determining railroad freight charges. There are class rates for more highly processed commodities and so-called "commodity rates" for raw materials and crude manufactures. There was no complaint about Southern commodity rates, which are rather low, but in the mid-forties the Southern first-class freight rate was, on the average, 38 per cent higher than the Eastern. This meant, for example, that the first-class rate for a shipment from Birmingham to Muncie, Indiana, was 40 per cent higher than the rate from Pittsburgh to Rockford, Illinois, a distance of equal length. The discrepancy in rates substantially reduced the territory within which a Southern manufacturer would have had an advantage in the cost of shipments over an Eastern competitor. It may have had a deterring influence on the location of certain

industries in the South, and may have protected Eastern industrial strength. Since there is little significant difference in the cost of furnishing railroad transportation in the South as compared with the East—costs in the South are rather lower—the class rates charged in the South may well have been discriminatory. This was indeed the view of the Supreme Court. In response to the decision by this tribunal, Southern class rates were reduced by 10 per cent in 1947, while Eastern rates were increased by the same percentage.[3] In this way some measure of equalization of the economic opportunities of the South and East was achieved. In more recent years, the Interstate Commerce Commission has continued its efforts to bring Southern class rates in line with class rates in other parts of the country.

Many obstacles that in the past have blocked the path of industrial progress in the South have been removed. But of late a new one has arisen in consequence of the increased racial strife in recent years. Reports of violence, and the protracted struggle about integration in the field of education, which has led to the closing of a number of public schools, have discouraged the movement of new industry to the South. Management, for obvious reasons, is concerned about the availability of adequate educational facilities for its future employees. The sooner the South puts its house in order, the better it will be for the continued economic growth of the region.

SPECIAL PROBLEMS OF THE WEST

Rapid economic growth, the oustanding characteristic of the West, is often associated with regions whose development was delayed relative to that of other parts of a country. Processes of growth, which take a century to complete in more mature regions, may require a decade at the "frontier." The population of California increased by nearly 50 per cent between 1950 and 1960; an equivalent increase in the whole United States took the thirty-year period from 1930 to 1960. The moving frontier of westward expansion has been interpreted as a symbol of the American spirit of restless striving for new worlds to conquer. While the Western frontier was originally conceived as a region of new settlement, "the meeting point between savagery and civilization," the fact that the last of the new settlements were established some seventy years ago has not meant the end of the frontier.

[3] *New York* v. *United States*, 331 U.S. 284 (1947). For a number of years there was pending before the Supreme Court a complaint of the state of Georgia in which some twenty railroad companies were accused of rate-fixing machinery to the disadvantage of the South. *Georgia* v. *Pennsylvania R. Co.*, 324 U.S. 439 (1945). The passage of the Reed-Bulwinkle Bill in 1948 was responsible for the dismissal of this suit in 1950. See above, p. 429, Milton S. Heath, "The Uniform Class Rate Decision and Its Implications for Southern Economic Development," *Southern Economic Journal*, Vol. XII, No. 3 (January, 1946), pp. 213–37; "Interterritorial Freight Rates," *Law and Contemporary Problems*, Vol. XII, No. 3 (1947); Ellis G. Arnall, *The Shore Dimly Seen* (Philadelphia: J. B. Lippincott Co., 1946), chap. xi; William H. Joubert, *Southern Freight Rates in Transition* (Gainesville: University of Florida Press, 1949).

The rapid economic development which characterizes the West creates dynamic change and opportunities not unlike those which attended the original conquest of the frontier.

Western expansion has been ascribed to four factors: abundant equipment with raw materials such as gold, silver, copper, lead, zinc, petroleum, and timber; rapid population growth; a quickly expanding local market; and government-promoted expansion of industrial facilities during World War II. The government's role in the expansion has been prominent also in irrigation, hydroelectric power production, and forest conservation.

The Western Region. The West is a region conventionally defined to include eleven states: the Mountain states with Montana, Idaho, Wyoming, Colorado, New Mexico, Arizona, Utah, and Nevada; and the Pacific states with Washington, Oregon, and California. This is the delineation of the West in the federal census. Some authorities prefer a wider concept. Regional income statistics, for example, distinguish between the Rocky Mountain states—Colorado, Idaho, Montana, Utah, Wyoming—and the Far West—California, Nevada, Oregon, and Washington. There are a number of other regional groupings, some of which include Alaska and Hawaii. In the discussion which follows the terms denoting the various regions are used in the same sense in which they are introduced in this paragraph.

Population Growth. It is due to the influence of migration that population growth, reflecting natural increase as well as population movements, is nowhere nearly as pronounced as in the Pacific states. In these the population increased by 49 per cent from 1940 to 1950, compared with an over-all increase in the United States of 15 per cent. From 1950 to 1960 the rate slowed down a bit, probably reflecting the decline of job opportunities in the aircraft industry during the late 1950's, but it still was close to 40 per cent and more than twice the percentage for the country as a whole. The Pacific region is the destination to which most of the migrants from other parts of the country want to move. Since the 1940's California has been the state with the second-largest population in the nation; and if present trends continue, it is expected to challenge the state of New York for the first place late in 1963.

Income in the West. Among the economic factors that draw people to the West, high incomes play an important role. Income has traditionally been high at the West Coast, and since the 1940's the Far West has rivaled the Middle Eastern states—New York, New Jersey, Pennsylvania, Delaware, Maryland, and the District of Columbia—as the region with the highest per capita personal income. In 1959 this was $2,565 in the Far West, compared with $2,166 for the country as a whole.

In the Mountain states change occurs at a rapid pace. Population density is low, but the increase in population in Nevada and Arizona is above even the California rate (see Fig. 69). What industry there is, is heavily concentrated in the Far West, although during the 1950's the movement of

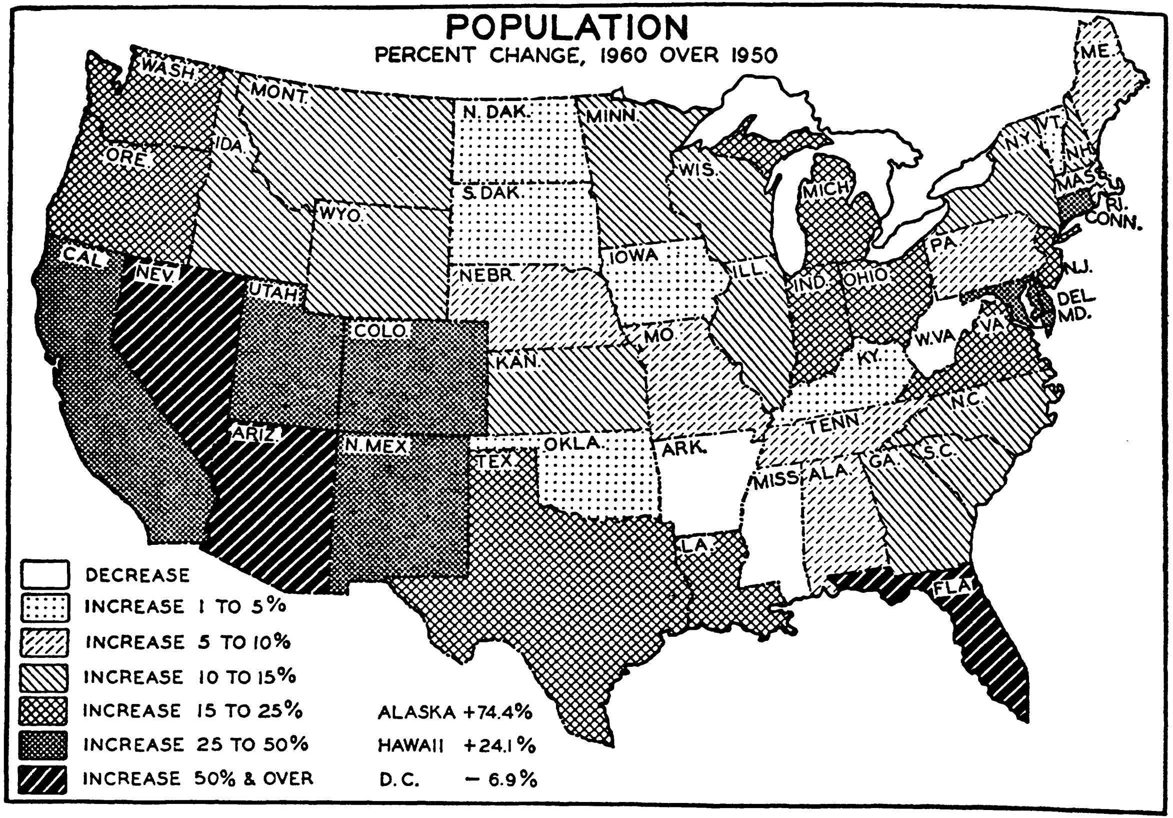

FIG. 69. During the 1950's, population growth was most pronounced in Florida, Nevada, and Arizona. Source: U.S. Census. From *The Cleveland Trust Company Business Bulletin*, August 16, 1960. By permission.

industry to Utah and other Mountain states has also been accelerated. Manufacturing payrolls contribute close to 20 per cent of income in the Far West, and a little over 10 per cent in the Rocky Mountain states. Agricultural income is less than 10 per cent in Rocky Mountain states and less than 5 per cent in the Far West.

The high level of Western income is related to the high degree of urbanization, the prominence of the trade and service industries, the favorable age distribution of the population, and the composition of the farm income. Income in cities is higher than income in rural areas, and the high level of income in the Far West reflects the advanced stage of urbanization characteristic of the West Coast, especially of California, which contains 78 per cent of the population of the Pacific states, with more than four fifths living in cities. This is a proportion exceeded only in a few other states of the country.

The value productivity of human effort is relatively low in primary production, higher in manufacturing, and highest in the so-called "service" industries. Nearly as much as one third of the California personal income is derived from trade, finance, and services, a proportion larger than that for the country as a whole. This helps to explain the high level of California incomes.

The size of per capita incomes is determined also by the age distribution of the population. A population with a high proportion in the dependent age groups will, if other factors are equal, have a lower per capita income than a population in which the productive age groups are more heavily represented. In California the large proportion of immigrants from other parts of the country accounts for a relatively small number of young dependents, or at least it did so in 1950, the last year for which the relevant data are available. The median age of the California population then was 32, compared with 30 for the United States. In the same year, 40 per cent of the California population was in the most productive age group, from 25 to 50 years, compared with 36 per cent in the United States.

While the number of retired people who move to California is substantial, these generally do not cause a depression of average incomes. The retired people often derive income from property; and they support the profitable service industries, as do the numerous tourists who are attracted to the West Coast.

Far Western farm income is characterized by a large contribution of high-productivity fruit and truck crops. California alone supplies one third of the total value of these products in the United States. The remunerative structure of the California farm business accounts for the fact that the California farmers enjoy, according to recent calculations of the U.S. Department of Agriculture, a standard of living second to that in no other state in the nation, with New Jersey following in rank.

Agricultural Problems. In the past the eleven Western states have been an important source of supplies of beef cattle and sheep for the entire

United States. This function the West has fulfilled at a rate that has declined during the past decades. This development reflects the rapid increase in the Western population and its own needs, the limited amount of grazing land available for ranching, and the rise of new methods of fattening cattle.[4]

Western cattle is raised on the range, a large area of unimproved arid and semiarid land, which comprises nearly three fourths of the Western land. About one half of the Western range is publicly owned, mainly by the federal government, which holds only 1 per cent of the land area of the state of New York but much higher proportions of Western land, from 35 per cent in the state of Washington to 85 per cent in Nevada.

Western cattle are maintained by feed from the range, on pasture, and with the help of feed crops grown on farms. Some parts of the range have been broken up for cultivation, others have suffered from overgrazing and deterioration. How much cattle can be raised in the West depends on the feed-producing capacity of the Western range and of the range land converted to farms. This capacity, and this is an unusual feature of the Western farm economy, depends largely on public policy, because the development of new farm land requires irrigation, and irrigation projects are large undertakings that can be promoted only with the help of the government.

For the Western region of the United States, water constitutes a problem that the residents of the other parts of the country not always appreciate. About twenty inches of rainfall are required per year to carry on farming operations without irrigation. Broadly speaking, rainfall is less than 20 inches in the region west of the 97th meridian, that is, in the entire West, except for relatively narrow coastal strips. Hence, much of the Western agriculture depends upon irrigation, upon the most economical use of water, and upon its re-use if possible.

Altogether there are over 34 million acres under irrigation in the seventeen Western states. One half of the harvested acreage of the Rocky Mountain states is in irrigated tracts. The Bureau of Reclamation in the United States Department of the Interior, in conjunction with other agencies of the federal and state governments, has done much to facilitate irrigation. A full supply of irrigation water is delivered to 3.5 million acres; and a supplemental supply to another 3.3 million acres previously irrigated. The Bureau has transferred a substantial number of irrigation projects to water users' organizations for operation and maintenance. Much of the Bureau's work is a product of multiple-purpose river-development programs, such as the Columbia Basin project in the state of Washington; the Boulder

[4] The following discussion leans heavily on H. E. Selby and Donald T. Griffith, *Livestock Production in Relation to Land Use and Irrigation in the Eleven Western States* (Berkeley, Calif.: United States Department of Agriculture, Bureau of Agricultural Economics, March, 1946).

Canyon project in Arizona, California, and Nevada; and the Central Valley project in California. These projects are national assests of the highest value; their purposes include irrigation, hydroelectric power production, municipal water supply, flood control, protection from silt and salt water, recreation, fish and wildlife conservation, and other benefits.

The national forests cover 18 per cent of the land in the Western states. The livestock interests have set their eyes on them, and an administration in Washington that is inclined to dispose of our public domain might accede to their wishes. This, in turn, would lead to severe clashes with the producers of crops on irrigated farms. Also the scenic beauty of our great West, which every year attracts large numbers of tourists from other parts of the country, would suffer badly if the national forests were operated to the exclusive benefit of the livestock interests.

The dilemma is not easily resolved, however, because our per capita consumption of meat is increasing and requires larger rather than smaller shipments of beef from the West to the other regions of the country. But with increasing needs for beef cattle to supply the Western population and declining numbers available for Eastern markets, points in the Mountain states at which cattle are shipped westward rather than eastward have gradually moved in an eastern direction. This development has of late been accelerated by a change in the structure of the Western livestock economy. For long it has been the custom for large herds of Western cattle to be shipped to the Midwest to be fattened on corn before being sent to the market. In recent years, however, increasing areas under wheat or cotton, over which the federal government maintains acreage controls, have been converted to the production of grain sorghums, and this has found a wide use as a cattle feed. Thus, a rising proportion of Western cattle is no longer shipped to the Midwest to be fattened there on a corn diet. Instead, much of the feeding now takes place outside the Corn Belt and within the West, and the dressed beef is sent to the consuming centers. This has economic advantages, as the price of grain sorghums is lower than that of corn. Railroad freight rates for cattle on the hoof are less than those for dressed beef, but this is offset, and often more than offset, by the weight differential.

Irrigation in the West has facilitated a shift of cotton production from the old South to the arid regions of western Texas, New Mexico, Arizona, and California. Production in the three last-named states has risen from 2 per cent of the United States total in 1932 to 7 per cent in 1939, 9 per cent in 1941–50, and 20 per cent in the 1950's. From 1951 on, California alone has produced over 10 per cent of the United States total output of cotton, ranking only behind Texas and Mississippi. Yield per acre on these new fields, broadly speaking, is more than twice as high as on the cotton plantations of the old South, where farm units are smaller and operations less mechanized.

The eleven Western states are important producers of sheep. About one half of the sheep in the United States are raised in that region. The trend of sheep production and marketing depends on the same chain of factors that operate in the case of beef: the line of balance between eastward and westward movements shifts eastward at a rate determined by feed supplies, which in turn depend on irrigation developments.

The Western wool economy, important as it is in itself, is significant also because Westerners are apt to refer to it as a striking example of certain disadvantages to which the Western economy is often exposed. There are few processing facilities for locally produced wool in the West, and the bulk of it is shipped to the Atlantic Seaboard region, to be treated and transformed into fabrics that are then supplied to the rest of the country. The West is dissatisfied with the role of supplier of raw materials and eager to participate in the more highly productive manufacturing activities in which the East is outstanding.

Industrial Development and Prospects. Manufacturing is of comparatively recent origin in California. Before the year 1900, there were chiefly so-called residentiary industries, neighborhood manufacturing establishments principally in food processing that catered to local markets. Prior to 1900 the West Coast population, although it increased at a rapid rate, was still too low in density to provide a market large enough for modern industry. At that state of development the scale of operations practical in California would have been too small to allow industrial enterprises in California to overcome the competitive advantages of the established manufacturing centers in the East.[5]

Apart from the lack of an adequate market, there were also important cost differentials operating to the disadvantage of Western industry. Coal, the principal source of power at that time, had to be shipped from Utah over long distances. Only after 1910 were petroleum and water power available at low cost and in relative plenty.

The promotion of manufacturing during World War I thus occurred at a time when California had just become ready to participate in industrial activity extending beyond the processing of vegetables, fruits, and sea foods. In these branches the proximity of raw materials had led to early prominence of the canning industry.

At the time of the outbreak of World War II, California industry, though it had advanced rapidly, was prominent, nevertheless, mainly in the production of consumer goods. Apart from a few durable producer-goods industries—chiefly assembly plants of Eastern manufacturers—the region was poorly equipped with heavy producer-goods industries. But in certain areas, especially in the Los Angeles industrial area, the development was

[5] See, for this and the following remarks, E. T. Grether and Associates, *The Steel and Steel-Using Industries of California* (Sacramento: State Reconstruction and Reemployment Commission, June 1946), pp. 19 f.

fast enough to justify the statement that a period of growth, which in the New York City industrial area had required 150 years, was experienced in the West in 50 years.[6]

During World War II, industrial production in the West advanced at a rapid pace, more rapid than in the country at large. The net increase in nonagricultural employment between April, 1940 and November, 1946, was much greater in California than in the nation as a whole. The relative differences are shown in the following tabulation of percentage changes for total nonagricultural employment and various industry divisions:

PERCENTAGE INCREASE FROM APRIL, 1940 TO NOVEMBER, 1946

	United States	*California*
Total nonagricultural employment	37	56
Manufacturing	47	80
Construction	54	76
Transportation, communication, and utilities	40	61
Trade	28	44

California's share in the country's manufacturing employment rose from less than 4 per cent before World War II to over 6 per cent during the course of the conflict. The accelerated rate of industrial development during the forties and fifties also reflected the strategic trend toward decentralization. The federal government financed plant expansion in synthetic rubber, steel, atomic energy development, and many other lines. While substantial parts of the wartime expansion occurred in such facilities as shipyards and aircraft manufacturing plants, the war brought to the West an increase in steel manufacturing capacity and new aluminum plants, developments about which more will be said presently.

The new steel production capacity has been an important factor in promoting the growth of fabricating industries on the West Coast. General Electric, Westinghouse, International Business Machines, and many other great Eastern business concerns have set up branch establishments in California; and this state has indeed been referred to as a branch-plant empire. California now ranks second to Michigan in the assembly of automobiles and has become a center of the garment industry outranked only by New York.

The industrial area of Los Angeles is well known as a leader in the production of motion pictures. In addition, it has attained first rank also in the production of such diverse articles as aircraft, pumps, compressors, refrigeration equipment, and canned seafoods. It holds second rank in ten other industries and third in twelve.

In the Northwest, Boeing is the largest industrial employer. The dependence of the region on military procurement is a pronounced one, with California alone holding over 20 per cent of the prime contracts for national

[6] Glenn E. McLaughlin, *Growth of American Manufacturing Areas* (Pittsburgh: University of Pittsburgh, 1938), p. 205.

defense. As aviation has been de-emphasized, electronics, missile work, and nuclear-energy installations have come to the fore. In the electronics field, many small firms have sprung up, as the work often involves the production of whole "systems" in which many subcontractors participate. In the Los Angeles-Long Beach Metropolitan Area, which has attracted so many newcomers and which ranks second in population after the New York Area, having outrun the Chicago Area in the 1950's, the aircraft, electrical equipment, and ordnance (including missiles) industries employed 39 per cent of all factory workers in 1958. Many industrial developments in the region are thus extremely sensitive to changes in defense requirements. There also is much rivalry with Eastern interests who insist that a greater share of defense orders should be made available to areas of unemployment and labor surplus. The Westerners have opposed this, pointing to the natural advantages of their region and to the reservoir of skilled labor available for highly specialized jobs in the field of defense.

Western Aluminum and Power Production. The West now contains within its borders an aluminum industry that contributes 30 per cent to the aluminum production of the United States. This is a new development, which has profoundly affected the structure and location of our aluminum industry. Before World War II the Aluminum Company of America was the only producer of virgin aluminum in this country. Production then was concentrated in Tennessee, North Carolina, and New York. The wartime and postwar expansion of production led to the entry of new firms into the aluminum field—Reynolds Metals Company, Kaiser, Olin, Harvey—and the West became a new center of the industry.

More recently again the aluminum industry has moved to the Ohio River Valley to take advantage of close markets, low freight rates for water transportation, and utilizing natural gas, lignite, or bituminous coal for the generation of electric power. This has reduced the share of the Western plants from 40 to 30 per cent of total output.

Like the earlier installations, the Western plants utilize hydroelectric power. For the production of one pound of aluminum, approximately 10 kilowatt hours of electricity are required. To provide a basis for the operations of the aluminum industry in the West, a huge expansion of power production took place in the region. The newly available power is harnessed by the Bonneville Power Administration, an instrumentality of the United States government which operates the power system of the Columbia River. This includes the Grand Coulee Dam and ranks as the nation's largest producer of hydroelectric energy. Multiple-purpose river-development programs with their power and irrigation features are of extreme importance for the West. The Columbia River power system generates a large part of the power sold by Northwestern utilities. Together with private utilities, it feeds its surplus power into a pool, from which other utility concerns draw their requirements.

Western Steel. Two new Western steel mills, one at Geneva, Utah, and the other at Fontana, California, were constructed during World War II. The plants have more than doubled the basic steelmaking capacity in the West. As the nation's capacity has been greatly expanded, the Western, however, remains small relative to the total, amounting to less than 5 per cent.

The Fontana plant is located in the vicinity of the consuming centers of the West—45 miles east of Los Angeles—and only 160 miles from its source of iron ore. But it is far from its source of coal in Utah—800 miles away—farther indeed than is true of any other great steel center in the country. The Fontana plant, operated by Kaiser Steel, is the only integrated steel mill on the Pacific Coast, and its capacity is being doubled to meet the Western requirements for rolled steel, one half of which is shipped from other regions of the country. The construction of a pipeline to bring natural gas to California will add to these requirements.

Both the Fontana and Geneva plants had been built by the government during World War II to produce plate for the shipbuilding industry. It was hoped that the eventual disposal of the two new, government-financed steel mills would be made in such a fashion as to strengthen the regional economy. It was pointed out that in view of Eastern competition, "market participation [of the new plants] will . . . not be achieved without aggressive independent pricing. . . . Control of Western operations by Eastern steel interests does not promise independent and competitive pricing."[7] The suggestions indicated in these sentences did not altogether come true. Only the Fontana plant, the smaller of the two mills, was acquired by independent interests, while the Geneva plant, with an ingot capacity of 1.3 million tons, was sold to the United States Steel Corporation and is now operated by the Geneva Steel Company, one of its Western subsidiaries. Columbia Steel, another subsidiary of the United States Steel Corporation, is expanding its operations at Pittsburg, California, and elsewhere. This company has also acquired the assets of Consolidated Steel, a fabricating concern located at the West Coast. This transaction came under attack by the antitrust authorities but eventually was sanctioned by the Supreme Court.[8] United States Steel announced in 1960 that it has plans for the construction of an integrated steel mill on the West Coast.

While these facilities are designed to cater to the needs of the Western region, the steel shortages during the late 1940's and early 1950's made it easy for Western steel producers to find markets also in other parts of the country as well as abroad, and the wartime development of port facilities along the West Coast has done much to improve its ability to sell in foreign

[7] "Western Steel Plants and the Tin Plate Industry," Letter from the Attorney General, Senate Document No. 95 (79th Cong., 1st sess.) (Washington, D.C.: U.S. Government Printing Office, 1945), p. vi.

[8] *United States* v. *Columbia Steel Co.*, 334 U.S. 495 (1948).

markets. Shipping distances between California ports and Asiatic markets are short, and at first glance there would seem to exist an advantage to California over inland or East Coast producers. This advantage, however, in the past has been more apparent than real because ocean freight rates do not increase with distance but are related to other factors, including the volume of traffic, which was rather small in the West. Moreover the inland producers' rates for rail shipments designed for export are substantially lower than rates on goods for domestic use. In spite of these factors, however, expansion of the Asiatic markets is bound to benefit Western industry.

Cost of Credit. Some of the more specific difficulties with which Western industry must cope are related to high rates of interest on commercial loans, high wage rates, and to certain practices in the field of industrial price and freight rate determination which tend to be interpreted as favorable to Eastern industrial interests. We will discuss these matters one by one.

In 1946 average interest rates for business loans obtained from commercial banks were 3.8 per cent in the San Francisco Federal Reserve district compared with 2.9 per cent in the country as a whole. Some fourteen years later, in March, 1960, the differential still existed, but it had by then been reduced, the San Francisco rate having risen to 5.72 per cent and the national one to 5.34 per cent.[9] Differentials that are so small are not important as factors determining the decisions of businessmen. Nevertheless, the geographical spread represents a curious phenomenon. In the South and East, interest rates tend to vary inversely with the size of banks; and as banks tend to be small in the South and large in the East, Eastern rates are below the Southern.[10] In the West, large banks—in terms of amounts of deposits—are more significant than in other parts of the country, and branch banking is highly developed. But in the West the relationship between the size of banks and interest rates does not hold. It is possible that the higher loan rate is related to the economic power wielded by the huge branch-banking empires of the Western region.

Wage Rates. Just as the outward movement of population from the South and other regions reflects low wages, so do the high wages in the Pacific region attract a large stream of migrants. In the manufacturing industries of the Pacific states the level of hourly earnings is higher than anywhere else in the country. The high level of wages on the West Coast is no new phenomenon but has been observed by many earlier students of the Western economy. It has always attracted immigrants from other parts of the country. Just as in the South the outward movement is not strong enough to eliminate the wage differential, so does the need for labor in

[9] *Federal Reserve Bulletin*, July, 1947, p. 814; Letter from the Federal Reserve Bank of San Francisco, dated June 29, 1960.

[10] John S. Henderson, "Regional Differentials in Interest Rates," *Southern Economic Journal*, Vol. XI, No. 2 (October, 1944), pp. 113–32.

California increase at a faster rate than the supply. The differential thus tends to become perpetuated.

It is not certain whether or not, and to what extent, the California wage differential is related to productivity. It may well be that the California industry derives advantages from its position of a newcomer; and these advantages perhaps offset, or more than offset, the effects of higher wage rates on labor cost. This view is based principally on the modern character of the equipment of the California industry. It is not necessary, however, to explain the Western wage differential exclusively on the basis of higher physical productivity. Obviously, to the extent to which the California industry serves a regional market where it competes with Eastern suppliers, it can afford labor costs that are higher than those incurred in other areas, so long as the difference does not exceed freight charges incurred by the shipment of goods from the East.

Absentee Ownership. Westerners have long complained about Eastern exploitation. Absentee ownship is pronounced in Western industry and has been accentuated by the trend toward branch plants. Trade-marks, nation-wide advertising, and the like, make it difficult for an independent producer to go into business by himself. Out-of-state control of enterprises not only drains profits away from the region but also impedes the growth of a regional class of people trained in the arts of management, the more so since hiring frequently is centralized in the East.

The Basing-Point Systems and Zone Pricing. More specifically, Westerners are dissatisfied with the price policies of Eastern producers, especially of steel, and the determination of freight rates. The steel industry, it will be recalled, practiced price discrimination by employing until 1948 a system of delivered or basing-point prices (see p. 372). The practice of "freight absorption" by which Eastern steel mills supplied the West by absorbing some of the freight discouraged the development of Western industry and facilitated sales by Eastern producers in Western territories. As Western steel mills charged the same delivered price as Eastern mills, the purchaser had no economic incentive to prefer the former; and the Western steel industry developed only slowly. Before the war, more than one half of Western requirements were met by shipments from other regions of the country.

The position of Western steel fabricators and other users was unfavorable. Owing to the high cost of steel in the West, they found themselves at a disadvantage whenever they, in turn, attempted to enter extraregional markets. When the basing-point was modified in 1948, there was hope that they would benefit from a reduction of the cost of Western steel. However the freight advantages of Western producers may, in practice, be more apparent than real owing to the resuscitation of pricing systems essentially similar to the basing-point system (see p. 373), under which the Chicago and Geneva basing points are still in use.

Freight Rates. In view of the long distance which separates California from important centers of production and consumption in other parts of the country, railroad rates are of especial significance for the West. West Coast producers can sell in the East only if freight charges do not inflate prices beyond the level that prevails there. They can move their goods to the South and Middle West only if Eastern competitors do not receive favorable differentials in transportation charges.

As is the case throughout the country the structure of Western railroad rates is determined by the collective action of the regional carriers. Their organization, it is claimed, is in the last analysis controlled by Eastern financial groups—the Morgan-First National City Bank of New York group especially—which are closely attached to Eastern industry, including the United States Steel Corporation. This situation has presumably been responsible for retarding Western industrial growth. While rates on eastbound fruits, vegetables, sugar, wine, and on the products of agriculture in general are priced to promote the exportation of foodstuffs, rates on westbound shipments of steel, clothing, vehicles, and beverages are not especially suited to the needs of Western manufacturing interests. Moreover, middle-distance hauls in the West cost more than equivalent movements in the East, although short hauls cost less.[11]

Western railroads were parties to an antitrust suit which the Department of Justice instituted against them during the forties. It was then hoped that this suit, if successful, would produce substantial relief for the West by putting an end to rate-making conferences and agreements in which the carriers collectively determine the conditions under which their services are available. However the passage of the Reed-Bulwinkle Act of 1948, which expressly legalizes rate agreements of the railroads, put an end to these hopes.[12]

The Supreme Court, in the same decision which resulted in a reduction of Southern class rates, found class rates in the Western region East of the Rocky Mountains discriminatory. These rates were from 30 to 59 per cent in excess of Eastern class rates. For example, shipments at first-class rates from Denver to Cleveland were 45 per cent more expensive than shipments over an equal distance in the Official Territory. Shipments from Lincoln, Nebraska, were 35 per cent higher, and so on. The discrepancy in rates may have had effects similar to those observed in the South. Western manufacturers were placed at a disadvantage compared with their competitors in low-rate regions. For example, two traveling-bag manufacturers, one in Woodbury, New Jersey, and the other in Denver, are located in equal distance from all points along a fairly straight North-South line passing through Madison, Wisconsin, and New Orleans. But as a result of higher

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[11] Stuart Daggett and John P. Carter, *The Structure of Transcontinental Railroad Rates* (Berkeley: University of California Press, 1947).

[12] See p. 429, above.

rates in the West, freight rates were found to be equal at a line much to the west of the line of equal distance. The Western manufacturer was thereby deprived of sales in Minnesota, Wisconsin, Iowa, Illinois, Missouri, Arkansas, Mississippi, and Louisiana.[13]

In 1947 the Supreme Court ordered a reduction of class rates in the West by 10 per cent for the same reasons which had motivated its decision to reduce rates in the South.[14] Since Eastern rates were raised by 10 per cent in consequence of the decision of the Supreme Court, a beginning was made in the direction of nationwide equalization of the terms on which transportation facilities are available. In 1955, the Interstate Commerce Commission ordered further reductions, from 16 to 29 per cent, of class rates on transcontinental freight moving to and from the West, and made other adjustments, some upward but most of them downward, of class rates for freight moving within the Far West.

NEW ENGLAND IN TRANSITION

Unlike the West, New England is one of the regions of the United States that were settled ahead of others and which constituted an early industrial establishment. This has created problems of its own, with which the people of the region are coping vigorously and persistently. In a number of respects the situation in New England is not substantially different from that found in old England. Old England, as Thorstein Veblen observed in 1915, is plagued by "depreciation through obsolescence" and must pay "the penalty for having been thrown in the lead and so having shown the way."[15] Like old England, New England pioneered in industrial leadership, and when other regions followed the lead, the erstwhile path breaker found itself hampered by an industrial structure established in the past which had to be revamped to meet the need of new times.

Population and Income Growth. New England comprises only 2.1 per cent of the area of the continental United States; but as of 1960, it accounts for close to 6 per cent of her population and close to 7 per cent of her income. In New England, economic activity is highly concentrated in the three industrial states of the southern part of the region: Connecticut, Massachusetts, and Rhode Island. These three states comprise only ½ of 1 per cent of the nation's area but account for close to 5 per cent of the United States population and over 5 per cent of the United States income.

The New England population grows rapidly but not quite as rapidly as that of the whole United States. Hence, relative to the total United

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13 "Regionalized Freight Rates: Barrier to National Productiveness," House Document No. 137 (78th Cong., 1st sess.) (Washington, D.C.: U.S. Government Printing Office, 1943), pp. 46 f.

14 *New York* v. *United States*, 331 U.S. 284 (1947).

15 Thorstein Veblen, *Imperial Germany and the Industrial Revolution* (new ed., New York: Viking Press, 1946), p. 132.

States population, there has been a decline, from 7.4 per cent in 1900 to 7.0 per cent in 1920, 6.4 per cent in 1940, and 5.8 per cent in 1960. As it did in 1929 and 1939, the New England per capita personal income still holds third rank among the eight national-income regions of the country, following behind the Far West and Mideast, although at times it was surpassed also by Great Lakes region.

In terms of per capita personal income, the New England average exceeds the national one by a substantial margin of 11 per cent. In 1948 the New England per capita personal income was only 6 per cent higher than that of the United States. Since then the differential has gradually increased to 7 per cent in 1949, to an average of 10 per cent in 1950–54, and to 11 per cent thereafter. Measured in terms of per capita personal income, economic growth in New England, since 1948, thus has been occurring at a faster rate than in the country as a whole.

Going back still farther, we find that in 1929 the New England per capita personal income was no less than 25 per cent higher than that of the United States. Ten years later, in 1939, the difference was still grater, 27 per cent. During the 1940's it declined abruptly, reaching a low point of 6 per cent in 1948. Since then it has been rising in the manner indicated in the preceding paragraph. The national income experience of New England during the first eight years of the 1940's thus reflects the general trend of regional income spreads to narrow down, a tendency which has been commented upon on p. 651. In the New England case this tendency made itself felt in the form of a precipitous decline that was accelerated by an old, established structure of the regional industry which prevented it from sharing more fully in wartime expansion of production. What has happened after 1948 reflects the resolute attempt of the region to escape from the fetters of the past and to rebuild its industrial structure after a new pattern that would permit of economic growth rather than stagnation.

The Decline of the Textile Industry. New England's precarious position in the 1940's was, to a marked degree, the result of the traditional dependence of the region on the textile industry as well as on other industries—the shoe industry, for example—which have similar features in that they lack the power of expansion. Such industries are "mature" in the sense that the discretionary spending characteristic of high-income economies passes over their products, and that these in turn require an ever-diminishing labor input.

The rise of the South as a new center of the textile industry brought distaster to many New England mill towns. Many a factory was moved lock, stock, and barrel to the South, with the empty shell of the factory building left behind. Industry moved South because it was attracted by a plentiful supply of labor, more docile, barely unionized, earning lower wages, and less set in their ways than were the New England working people. There were further inducements in the form of lower taxes and

proximity to raw materials and to rapidly growing markets, factors which the spokesmen of the South did not fail to advertise and to whose strength they added tax privileges and the subsidization of new industries by means of bond-financed plant construction.

In shoe manufacturing the situation was aggravated by the ease of entry into a field which requires relatively little capital—machinery and plants usually are rented—and only a modest amount of technical knowledge.

The textile industry is still of importance in New England, especially the manufacture of woolen and worsted goods. It still provides 10 per cent of the manufacturing employment. But the number of workers in the textile mills has fallen from close to 500,000 after World War I to less than 300,000 after World War II, and to some 130,000 in 1957. In the field of leather and shoes, the New England industry has more nearly held its own, with employment declining from 150,000 after World War I to some 110,000 in 1957, approximately the same number as after World War II.

Importance of Service Industries. Of the 150 largest industrial corporations, only two have headquarters in New England. In contrast, six of the country's largest 100 banks are located in the region. New England has for long been prominent in finance, trade, insurance, and the service industries in general, and many of the concerns active in these fields are of national importance. There is a net outflow of capital from the region estimated at $300 million a year, yielding the region a high investment income. As the national income rises, an increasing portion of it is spent on many services in the production of which New England stands out. The region is famous as a center of culture and learning, having within its borders Harvard, Yale, and M.I.T. These are not only national institutions but they have promoted what has become a highly important asset of the region: industrial research.

The Rise of New Industries. Investigations have shown that a large proportion of the industrial expansion which has occurred in New England during the 1950's is directly related to research-based industries and to the new products which they turned out. Expanding New England industries include electronics and aircraft manufacture. Employment in the electrical machinery industry has risen by over 30 per cent during the 1950's, and employment in the transportation equipment industry by 100 per cent. Employment in either one of these two industries has come to rival that provided by the textile industry, and it exceeds that in leather and shoe manufacture. Other expanding industries are printing and publishing, and apparel. The aim is diversification rather than reliance on one or a few large industries.

Factors in Industrial Growth. These developments indicate that the New England people are making the most of a situation that contains many obstacles to industrial growth. The region has an inadequate raw-materials base with only insignificant deposits of coal, petroleum, iron ore, or other important mineral resources. It has geographical advantages which shorten

the water haul from ocean ports, but, being located in the most remote northeastern parts of the country, it suffers disadvantages when goods are transported to and from inland areas. The increasing substitution of processed materials of relatively light weight, such as aluminum and plastics, for heavy raw materials (see p. 616) may work to offset the disadvantages of the region arising from raw-materials deficiency and location.

In New England manufacturing, employment in durable goods production has gradually increased relative to nondurable goods and now constitutes one half of the total. This is encouraging from the point of view of the further industrial growth of the region, but it makes the regional economy more sensitive to recessions and also to changes in government procurement for defense, for which much of the output of the electronics and aircraft industries is produced.

Much thought has been given in New England to the construction of a large integrated steel mill to serve the requirements of the steel-using industries. Technological and other factors account for an increasing locational advantage of a steel mill placed in the vicinity of the users of the product rather than close to the raw materials required for steel production. However, the leading steel producers have expanded much of their steel-producing capacity at more centrally located points on the Atlantic Seaboard—Sparrows Point, near Baltimore, Maryland, and Bucks County, Pennsylvania—rather than in New England.

The New England economy is burdened by high costs of power and fuel, as much as 50 per cent higher than in the country as a whole. Deposits of coal and natural gas are far away, and virtually all sources of hydroelectric power are by now utilized. From now on, new thermal installations will mainly be built along the coast to benefit from cheap ocean transportation of coal. As a co-operative venture of ten electric utility companies, a nuclear power plant began operations in 1960, to supply about 2 per cent of the New England power requirements. The cost of this is 30 per cent higher than that of steam-generated electricity.

New England taxes, especially the local ones of the large cities, constitute another obstacle to economic growth. They are often higher than in the South or in California. With a rate of $101.20 for each $1,000 of valuation, the property tax revenue of the city of Boston is second only to that of New York, and the per capita cost of municipal government is higher in Boston than even in New York. However, this is not as serious a matter as may be thought at first glance, because new industries frequently get established outside of the high-tax urban areas.

While taxes on the whole are higher, wages in New England are in many industries below the national, although not the Southern, level. This is an important factor and accounts for favorable prospects of the low-wage industries. In the New England textile industry, however, wage and fringe costs are above the national and the Southern level. Where New

England wages are higher, they usually are not offset by factors that might result in labor costs as low as they prevail in some other regions. Trade-unions are strong and insist on work loads and work assignments lower than those acceptable to nonunion labor in the South. Unemployment and workmen's compensation programs are more liberal and also more costly than those in the South. The pattern of state and municipal regulation of working conditions, as it has emerged during the long industrial history of New England, has brought standards of decency, which, while conducive to industrial health and welfare, place the region under a competitive disadvantage relative to areas not yet attached to such standards.

Nobody can deny that it would be deplorable if the solution of the New England economic problems were to involve the loss of these and similar social gains. A gradual rise of social standards in other regions of the country would be much preferable.

The Impact of Public Policies. Government policies have come to be an important determinant of the welfare of large sectors of the United States population. The position of New England demonstrates that the effects of public policies of the government not only differ in their impact on various occupational groups but also in their regional incidence.

Government expenditures for public power projects add to the resources of some regions. Others receive benefits from tax privileges bestowed upon mining and petroleum production. The economic position of farming areas is of special concern to the government, which grants aid to agriculture in various forms. On all these counts the New England region is in an inferior position as it receives no benefits in some of the cases enumerated here and very little in others. New England is, however, holding its own with respect to government grants for research and development. Nevertheless, some New Englanders insist that public policies have aggravated rather than alleviated their economic problems: much of the incidence of the relaxation of tariff protection has been borne by New England industries. A similar situation prevails with respect to labor legislation, which has promoted the unionization of New England labor more than of Southern labor, with the Taft-Hartley Act of 1947, in conjunction with other factors, in effect causing a freeze of existing conditions in the two regions.

Community Action and Development. New England has pioneered in the promotion of a new spirit of community action, which has stimulated similar developments also in other states. New Englanders have recognized that "rugged individualism" alone does not enable the region to develop the more diversified industrial structure which was to replace the textile industry's hold. In the New England states there have been formed development credit corporations, whose capital is subscribed by the regional business community and to which the financial institutions of the region will make loans many times the amount of their capital. To attract new

manufacturing plants, the development corporations will provide a second mortgage for new construction, amounting to 20 per cent of the cost, and following a first mortgage of 60 per cent which is obtained from conventional sources. In some states the corporation might underwrite the entire cost of a new facility and then lease it to the user on the basis of a long-term contract providing for eventual purchase. There are also state-supported industrial building authorities which provide guarantees for the payment of mortgages. The work of these state-wide agencies is supplemented by local development corporations which, together with private developers, select sites, construct plants and provide financing, often in the form of complete "package deals" or of "industrial parks" to reduce the cost of municipal services and utilities. A plant located in such a park will find itself in attractive surroundings, away from urban congestion, and able to occupy ample space that suffices for the construction of modern, preferably single-story buildings.

SUMMARY

The economic problems of maladjustment and unemployment arise from the position of certain industries and occupations—coal mining, textiles, etc.—and they are not as much as in the past concentrated in certain regions of the country. Economic differences between states and regions as measured, for example, in terms of their respective per capita incomes, have narrowed substantially over the past few decades.

Both the South and the West are regions of rapid economic growth. They are studied here as case studies of adjustment to economic change. Another type of adjustment confronts the New England economy, which is liberating itself from reliance upon the textile industry and is modifying its industrial structure along diversified lines.

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STUDY QUESTIONS

1. What is meant by an "economic region"?
2. Which region was referred to as the nation's economic problem No. 1 during the 1930's?
3. What has happened to regional differentials of per capita income?
4. How has reliance upon the production of cotton been de-emphasized in the South?
5. What are some manifestations of industrial growth in the South?
6. What has attracted industry to the South?
7. In which regions of the country is population growth most rapid?
8. Which regions of the country have the highest per capita income?
9. What is the importance of irrigation to the Western economy?

10. What has been the role of freight rates in retarding regional growth?
11. What are some important regional wage differentials, and what are their causes?
12. Are there important regional productivity differentials?
13. In what sense does an old, established industrial region have to pay a penalty for having been in the lead?
14. What are the characteristics of the New England region with respect to location, raw materials, and sources of power?
15. How has the New England economy been liberated from excessive reliance upon the textile industry?
16. Is it true that the New England economy derives relatively little benefit from government programs?
17. In what manner has the New England economy been revitalized by community action?
18. Which regions of the country do pose serious economic problems of unemployment at the present time?
19. Which regions of the country are particularly dependent upon defense orders?
20. What are the factors behind the narrowing of the differences between regional per capita incomes?

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